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ABSTRACT

The report examines trends and issues in the finance of higher education in West Germany. Patterns of finance in the fully funded state institutions of higher education are governed by the public budget law of 1969. The quantitative expansion of the higher education system planned at the beginning of the 1970s has been essentially completed. For the 1990s, the supply of places for students is expected to equal demand. Some objectives, however, have not been achieved including increased numbers of women students and teachers and stimulation of interest in the natural and engineering sciences. Students from medium-income families are disadvantaged and public expenditure on teaching and research has declined. Concerns which require structural reforms include the long duration of courses of study, the need for new postgraduate courses, and the need for courses for continuing, adult, and in-service education. Current discussion focuses on safeguarding the funding of institutions within the public expenditure framework and on using financial incentives to stimulate institutions to undertake reforms in structure and content. Critics of the present system of full government funding suggest meeting expenditures partly through tuition fees, fee subsidies and loans. The report details data leading to these conclusions in five chapters, an annotated bibliography of 16 items, and a statistical appendix. (DB)

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# CHANGING PATTERNS OF FINANCE IN HIGHER EDUCATION

## COUNTRY STUDY: GERMANY

This report is one of a series of country studies prepared in the framework of the OECD Education Committee activity on Changing Patterns of Finance in Higher Education. These studies have provided the background information for the preparation of a general report on this topic that will be published by the OECD.

The country study on Germany has been written by Dr. Hermann Schuster for the Federal Ministry of Education and Science (Germany). The views expressed are those of the author and do not necessarily commit the national authorities concerned or the Organisation.

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## SUMMARY

### 1. Financial Context

In the Federal Republic of Germany the patterns of finance in higher education have not basically changed in the past 15 years. They are governed by the public budget law, the principles of which also apply to the state-funded institutions of higher education. Privately funded institutions of higher education are an exception and play a very minor role.

Since its reform in 1969, the public budget law has been flexible enough to meet the special requirements of the higher education system. Models for changing the current policy of complete government funding (including models for covering costs partly by tuition fees, fee subsidies and loans) could also be put into effect within the scope of the law as it applies today.

### 2. Results of the Expansion Plans

The quantitative expansion of the higher education system planned at the beginning of the seventies has been essentially completed. For the nineties it is expected that the supply of places will be in line with demand in almost all areas of study. Apart from this, the infrastructure will be improved as necessary, new buildings will replace old ones (especially in the medical area), and new facilities, mainly for research purposes, will be provided. The geographical distribution of institutions is in line with overall plans. Thus, one of the principal objectives of expansion, that is, to increase the educational mobility of students from population groups that previously had no access to education and from regions where facilities did not exist, has been achieved. This result has been mainly due to consistent implementation of the law promoting the construction of institutions (Hochschulbauförderungsgesetz) and its strategic effect on the higher education policies of the German Länder.

Some quantitative objectives, however, have not yet been fully achieved, such as an adequate increase in the number of women students and women teachers and the stimulation of interest (especially the interest of women candidates) in Natural and Engineering Sciences. With regard to financial support students from medium-income families have been found to be severely disadvantaged and this discrimination must be corrected promptly. Public expenditure on teaching and research has declined as compared to the level prevailing in the seventies and has been static for some years now.

The expansion phase having been completed a programme is needed now for the replacement of capital assets. The regulations applying to the joint capital expenditures of the German Federal and Länder Governments have to be adapted as far as necessary to meet this need.

**Results of Structural Reforms**

With few exceptions, issues related to the structure and content of reforms have not yet been effectively tackled. The main concerns are how to shorten the excessively long duration of courses of study, introduce new postgraduate courses, develop courses for continuing, adult, and in-service education, and widen access to and differentiate the courses that are offered. The present financing system does not provide for any effective material incentive motivating institutions and their staffs to initiate reforms more vigorously.

Official policy is based on the expectation that greater efforts towards reforms of structure and content will come about once the demand for university and college places begins to decline at the end of the eighties. It is expected that institutions will become more enterprising when they find themselves having to compete for qualified students. Some observers doubt, however, whether competition among institutions, and thereby improved performance, will come about at all without some prospect of material benefits. Consequently, current discussions are focussing on safeguarding the funding of institutions within the public expenditure framework and on using financial incentives to stimulate institutions to undertake reforms in structure and content. Critics of the present system of full government funding point to existing models for meeting expenditure partly through tuition fees, fee subsidies and loans. The Scientific Council and powerful political groups believe that, at the present moment, such models cannot be put into practice, at least as far as undergraduate courses are concerned. They may be practicable at best for courses in the field of continuing education. Their implementation would have to be socially acceptable, favour institutional autonomy, offer incentives to institutions and their staffs, and avoid undue red tape in order to be palatable to all the parties involved.

## *CHAPTER I*

## INTRODUCTORY DISCUSSION OF THE MAIN THEMES AND CURRENT PROBLEMS

### I. The Higher Education Debate of the Past 15 Years

The development of higher education since the beginning of the seventies has been characterised by an effort to reconcile divergent objectives. The ground had been prepared by a massive publicity campaign promoting education and leading to a sharp increase, by the end of the 1950s, in the number of candidates qualified to enter higher education. By the end of the sixties the topic of greatest concern, fuelled by the onset of student unrest, was how to *open* institutions of higher education to larger segments of the young generation. The objective of the joint Federal and Länder Commission for Educational Planning and Research Promotion was to expand the sector to the extent that, in the medium term, it would offer sufficient places for about one quarter of the age cohort (19). The determining factor for the expansion of institutions was the firm intention of all policy-making groups to provide sufficient places. This chimed with the egalitarian spirit of the time.

Closely related to the policy of widening access to more young people was the particular intention, endorsed unanimously by all political parties, to increase the participation of students from lower income brackets. This access to institutions was to be *free of charge*. Existing tuition fees were abolished. The reasoning underlying this policy of free education for all derived from the theory of external effects according to which only public funding and regulation of higher education could ensure the broad educational base that would be of optimum benefit to the national economy. The internal effects, that is the fact that higher education offers considerable advantages to graduates over the rest of the age cohort were, at least initially, left out of consideration.

The opening up of admission was combined with the intention to create new structures which, in view of the changing situation, would place meaningful training at institutions within the reach of a much larger public. The main objective was to provide differentiated courses in as many disciplines as possible and to reduce the duration of study. Since 1970 the Scientific Council has made several very detailed recommendations to those ends which have concentrated mainly on the following goals:

- to change the composition of the student body and the distribution of students among the various areas of study;

- to introduce study courses in the field of continuing and in-service education;

- to reduce the duration of studies;

- to safeguard research at institutions of higher education;

- to ensure the quality of teaching;

- to adapt the courses offered to research developments and to the needs of the labour market;

- to ensure the regional balance of the academic opportunities offered;

- to further the development of junior academics;

- to increase efficiency;

- to promote co-operation between science and industry.

Towards the end of the seventies *the alarming consequences* of a too narrowly pursued policy of widening access to more young people became apparent. The deficiencies which became evident were related both to social and higher education policy. From the *social policy angle* the fact could no longer be overlooked that the generous financial support offered to students was jeopardising social equity. Rising expenditure on financial aid to students had become an excessive burden on public budgets whose deficits at the end of the seventies had to be covered more and more by borrowing. At that time, in order to stabilise the budgets of both the Federal and Länder Governments, it became necessary to take rigorous measures that affected all groups of the population and that could not but call in question the social benefits to students.

From the angle of *higher education policy*, the results of the relatively generous financial support for students were not all positive. The education free to all and non-repayable subsistence allowances led many students to believe in the illusion of risk-free undergraduate studies. But it was mainly the inadequate organisation of courses and insufficient co-ordination between the educational services offered and requirements of the labour market which led to fewer and fewer students completing their studies within the standard period of time. These were also the reasons why, irrespective of job opportunities, "easier" study courses were given preference and many students experienced considerable difficulties owing to their delayed transition in working life. Consequently, there has been a tendency since the beginning of the eighties to promote, on an equal basis, other goals of higher education policy which had been considered initially secondary to the goal of providing access to a larger number of young people, a principle that still applies.

## II. Current Problems

Mainly for demographic reasons, the phase of expansion is expected to terminate at the end of the eighties. By then, the quantitative objectives of expansion will have been essentially achieved. There still remain a few *desiderata* that must be tackled energetically, such as eliminating the disadvantages for students from middle-income families, further increasing the number of female students and female staff and stimulating interest in the Natural and Engineering Sciences. The problems of the inadequate recurrent funding of teaching and research and of replacing capital assets within institutions are also becoming more and more acute. The end of the expansion phase is also considered the right moment for taking up the *goals of structural and qualitative reform* which, as a result of the rapid expansion of the sector and the over-burdening of its institutions and staffs, have been much neglected in the past two decades.

The Scientific Council, whose principal task is to monitor the development of higher education and to draw up recommendations, expects that institutions will now turn more actively to those goals of the reform. Since the beginning of the eighties, the Council has again emphasized therefore the structural problems, for instance, in its recommendations on the structure of courses (41), on the functions and status of the *Fachhochschulen* (polytechnics) (43), on continuing education in the institutions (40), and on competition within higher education in general (42).

The last mentioned recommendation of the Council is based particularly on the expectation that, with declining numbers of new students at the beginning of the nineties, qualitative improvements will be made in the educational services offered because colleges and universities will increasingly face *competitive pressures*. The Council expects this development to occur even without any change in the current system of financing simply as a result of the genuine self-interest of institutions.

The recommendations of the Council on the structure of study courses are also based on this expectation. It advises institutions to re-design the system of academic studies so that

- undergraduate courses (including the final examination) leading to a first degree permitting entry into a profession can be concluded within a period of not more than 4 years and 3 months;

- qualified graduates can be offered post-graduate opportunities in certain subjects in the form of specialised programmes, graduate "collegial programmes" and graduate courses;

- continuing education for adults can be included in the educational services offered.

As far as achievement of these goals is concerned, the Scientific Council again relies on the initiatives of the institutions themselves. It states:

We do not fail to recognise the remedial efforts already taken or the burden on teachers and institutions of higher education which is not going to diminish to any noticeable degree before the nineties. Nevertheless, it is not always sufficiently recognised that there are slow but inevitable social and scientific developments that change the traditional university and make it part of a higher education system promoting the education of broad layers of society, a process that the university has to face by taking its own initiatives. In doing so, it must more clearly differentiate between its classical functions of research, teaching and promotion of junior scientists in order to cope more efficiently with each.

The experience so far calls in question the Council's expectation that the self-motivation and self-interest of institutions and their staffs can be relied upon to bring about implementation of the conceptual and structural goals of the reform. This is why suggestions have been made for modifying the system of public funding of higher education so as to stimulate the achievement orientation and efficiency of institutions and their staffs by offering financial inducements (23,25,26).

## *CHAPTER II*

## PRINCIPAL FEATURES OF HIGHER EDUCATION FINANCING SYSTEMS, FINANCING MECHANISMS AND QUANTITATIVE DEVELOPMENTS IN THE PAST FIFTEEN YEARS

### I. Funding of Higher Education - Survey

Higher education institutions are funded mainly by the Government. On a small, but increasing, scale they receive funds from private sources, especially for promoting research and supporting junior academics.

By far the largest share of recurrent expenditure is met out of the budgetary allocations of the *Länder*, which are responsible for almost all institutions. The list of institutions funded by the Länder Governments (II, 1) comprises at present 51 universities including technical universities, 7 comprehensive universities, 13 colleges of education, 25 colleges of art and 74 Fachhochschulen (polytechnics). Institutions funded by private sources are an exception and of no quantitative importance. Recurrent expenditure includes the costs of staff and materials, operating charges, costs of teaching and research, and the maintenance of buildings.

Since the system of finance was changed in 1969, the *Federal Government* has assumed half of the building costs of institutions and half of the cost of purchasing large-scale scientific equipment. Additionally, institutions receive federal funds through various other channels. In this context, the joint funding of the German Society for the Advancement of Scientific Research (Deutsche Forschungsgemeinschaft, DFG) by the Federal and Länder Governments has to be mentioned first and foremost. The DFG's support measures are crucial to the vitality of research. The Federal Government's contribution to financial aid to students under the Federal Education Assistance Act (Bundesausbildungsförderungsgesetz, BAFöG) amounts to two-thirds. In addition, the Federal Government contributes to the financing of scholarships for students and candidates for a doctor's degree through the scholarship organisations for the gifted, to post-doctorate education through the DFG, to scholarships for the international exchange of students and researchers through the German Academic Exchange Service (Deutscher Akademischer Austauschdienst, DAAD), the Alexander von Humbold Foundation (AvH) and the Carl Duisberg Society. The partial funding of pilot projects by the Federal Government and the funding of research projects by various departments of the Federal Ministries must also be mentioned.

## II. Basic Characteristics of the Budgetary Law Relating to Higher Education Institutions

Funding of the institutions is made out of the Länder budgets, which means that recurrent expenditure on staff, on teaching and research and on other operating expenses are covered by public resources that are regularly allocated. The institutions themselves have *no budgetary sovereignty*, such as local communities and social insurance organisations have under German public law, but form part of the budget of the Minister responsible for them through a separate budget chapter whose sub-division by individual types of income and expenditure shows only a few special institution-related characteristics.

An exception is made for the two universities and the college of art in Berlin. These institutions have their *own* budgets which are balanced by a general grant paid by the Land of Berlin. From a practical point of view, however, this special treatment differs very little from budgetary practice in the other Länder because, in both cases, the level of federal government funds available every year depends on decisions taken by the Länder Governments.

The provisions for *budget management*, however, are of considerable practical importance. Towards the end of the sixties the budgetary laws of the Federal and Länder Governments were to a large extent modernised and harmonised. The general regulations applying to budget management by government agencies do not provide for any special treatment of higher education institutions but they do allow for flexible adaptation to special needs within individual institutions, for example, in the form of notes in the budget and explanatory statements.

Of great practical importance are budget notes on the *coverage and transferability* of expenditure. The provision of coverage enables the institutions to exceed a particular budget item if the additional expenditure is offset by savings made under one or several other budget item(s). Transferability means that the funds earmarked for certain budget items but not used in a given year can be spent in the following financial year without running the risk of the appropriations being cut.

Thanks to these other possibilities for flexible and liberal budgetary management (which, however, are not used by all Länder to the same extent) important *special programmes* (such as overload programmes (*), and the Fiebiger Plan (*)) can be incorporated in the expenditure plans of institutions according to their needs and in compliance with budgetary law.

The biggest block of expenditure in the budgets of institutions is the *staff plan*. The proportion of expenditure on staff within the total expenditure of institutions amounts to 70 to 80 percent. The staff plan includes posts for research and non-research personnel. The staff plan for reserved personnel is subdivided into posts for professors, assistants (Assistenten), research and creative arts staff, and teaching staff for special functions.

Since 1969, -- in cases where the 50 percent contribution by the Federal Government is taken up -- the *capital expenditure* of institutions has been subject to the planning procedure provided in the law promoting the construction of buildings (Hochschulbauförderungsgesetz). According to that procedure the Länder introduce their building projects within a skeleton plan adopted every year by the Federal and Länder Governments on the basis of recommendations made by the Scientific Council. This procedure applies to the funds needed for large-scale equipment (that is, equipment for teaching and research, the cost of which exceeds DM 150 000 per item).

The treatment of so-called *"third-party" funds* under the budgetary law differs from case to case. Only a part of these funds is formally included in the budgets of the institutions, that is, if the funding agency demands it or if the institution itself or one of its establishments is the recipient of the funds. A considerable part of such funds, especially those that are granted to individual members of the institutions, is kept on deposit or in a special private account. If kept in deposit accounts, the funds are booked to a separate account (deposit account) of the institution on which the researcher who is the beneficiary has drawing rights. He or she alone will decide how the funds are to be used. In such cases, the institution acts only as an intermediary. Details of the budgetary law applying to higher education institutions are outlined in (28).

## III. Development of Staff Plans

In 1986, state-financed institutions had a total of 223 231 posts, of which 80 773 were posts for academic staff and 142 458 posts for non-academic staff. In Table II, 3.1 of the Statistical Appendix staff posts are subdivided into academic and non-academic personnel.

The surveys shows that the number of staff has risen by a total of 8 859 (or 4.1 per cent) between 1980 and 1986. Most of these additional positions were for non-academic staff (that is 7 009 or 5.2 per cent). The posts for academic staff only increased by 2.3 per cent or 1 850. However, from 1986 the number of academic staff again increased more strongly and is expected to rise even more according to the plans for 1987.

The development varies considerably from one *Länder* of to the next. The rates of increase in staff were above average in Baden-Württemberg, Bavaria, Lower Saxony, Rhineland-Palatinate and Schleswig-Holstein, whereas in Bremen and Northrhine-Westphalia the number of personnel was reducing.

Table II, 3.2 shows the differences in the development of the number of academic personnel according to the *type of higher education institution*. Particularly in the medical institutions, a continuous increase is to be observed. The number of academic posts at universities, however, has declined from 1975 to 1985 by six per cent. Over the last few years the number of positions at universities has, in fact, changed very little. The same is true of comprehensive universities. At the Fachhochschulen and at the colleges of art, numbers have increased moderately.

The relationship between the number of all *new entrants and the number of posts for professors* has increased from 5.3 in 1975 to 7 in 1983. In 1984 this ratio improved slightly (to 6.6), in 1985 it was 6.1. The ratio at universities improved from 7.1 in 1983 to 6.8 in 1985 and at the Fachhochschulen from 6.6 to 5.7 during the same period.

The ratio between the number of new entrants expected to stay at a university for an average period and the number of professors (tutorial ratio) was 31.9 in 1983 and 28 in 1985 on an average. In 1985 the student-teacher ratio at universities and teacher training colleges was 34.1, at comprehensive universities 23.3, at colleges of art 9.6, and at Fachhochschulen 20. The 1975 figures for comparison were: universities and teacher training colleges 29.1, comprehensive universities 20.7, colleges of art 13.7 and Fachhochschulen 16.4. In the past few years a rising number of centralised *staff pools* has been created for the promotion of research, for so-called Fiebiger professorships and overload programmes. The sub-division by Länder and principal areas of allocation is shown in table II. 3.3.

## IV. Recurrent Funds for Teaching and Research

In addition to staffing expenses, it is recurrent expenditure on teaching and research that is of special importance for the efficient operation of institutions. Experience shows, however, that the budget appropriations for this are liable to be cut because, unlike the staff plan, the expenditure is not laid down on a long-term basis. Thus, Table II. 4.1 shows that in 1982 the resources for teaching and research in all institutions (and in universities in particular) were cut considerably.

According to a *definition* of the Scientific Council for statistical purposes (36, p.10), the recurrent funds for research and teaching - regardless of whether they are included in the budgets of the institutions or of Ministries - comprise central funds (general expenses, promotion of research, overload funds, post-graduate support) and institutional funds (for teaching and research libraries, computer centres, central institutes and miscellaneous items).

In summary, the figures in Table II, 4.1 can be interpreted in the following way:

- Recurrent funds for teaching and research amount to about *16 percent of the total expenditure* of institutions (excluding medical institutions). [For patient care, compare with page 15].

- The *sum total of recurrent funds* for teaching and research of all institutions amounted to a nominal level of DM 1 778 million in 1985. The 1986 budgets show an increase (nominal) of 4.7 per cent in such funds.

- At constant prices (1980 = 100 per cent) the *actual expenditure of all institutions* in 1985 was 2.5 per cent higher than in 1980 (II, 4.1). The expenditure of universities in real terms declined from 1980 to 1983. The decline of about 10 per cent during that period was compensated for by an increase in funds, in real terms, in 1984 and 1985, so that 1985 expenditure returned to the level of 1980.

- Recurrent *expenditure per student* at constant prices (1980 = 100) has dropped by 50 per cent since 1970. In these figures there are clear differences among the various Länder. For the scientific institutions the highest figure was 41 per cent above and the lowest figure 49 per cent below the national average in 1985 (II, 4.2).

- In the eighties the *central funds* budgeted by the Ministries of Science for the promotion of research, overload programmes, post-graduate projects and general expenditures rose considerably (II, 4.3). In 1985 as much as 13 per cent of all recurrent funds were central funds.

- While the resources allocated to the technical universities in 1985 exceeded 1980 levels by 23 per cent in real terms, the traditional universities received about 1 per cent less. The Fachochschulen had about 12 per cent more in real terms than they had in 1980 (compare II, 4.4 and annex).

## V. Capital Expenditure

In this context capital expenditure means expenditure on the acquisition and development of property, on buildings, first installation and large-scale scientific equipment, which is shared equally by the Federal and Länder Governments under the law promoting the construction of institutions. Table II, 5.1 shows that capital expenditure reached a maximum shortly after the beginning of the seventies. In 1974 it amounted to almost DM 3 200 million. At 1980 prices the respective figure was about 4 400 million. Subsequently, capital expenditure declined to about DM 2 000 million at 1980 prices by the end of the seventies. Since then it has remained at about the same level apart from minor fluctuations. The amount of capital expenditure varies from one Land to the next (II, 5.2). In the period from 1973 to 1985, a total of DM 2 300 million was spent on *large-scale equipment* (II, 5.3) without counting special funds for the computer investment programme (CIP). The annual budget appropriations clearly show a tendency to rise.

The *computer investment programme (CIP)* was introduced in 1984 for the acquisition of microcomputer networks for teaching. According to the plans of the Federal and Länder Governments, a total of DM 250 million will be spent on this programme in the period from 1985 to 1988 (II, 5.4). Since the initiation of the programme, 539 networked computer systems with 6 561 work-stations have been installed, slightly more than one quarter of them at Fachhochschulen.

## VI. Funds from Third Parties

"Funds from third parties made available to scientists at higher education institutions or to the institutions themselves by public or private sources for research purposes are an essential contribution to higher education institutions for the accomplishment of their tasks" (33,p.79).

The *political evaluation* of funds from third parties and their management by institutions has changed under the amended version of the Framework Act for Higher Education (Hochschulrahmengesetz) of 1985 in so far as it has become easier to carry out research projects using such funds and, as a result, there is greater motivation to obtain them.

### a) Definition of the term

Even in the national context, it is difficult to understand fully the complex "funds from third parties". According to the definition of the Scientific Council, these are funds raised in addition to the institutions' regular budgets (basic resources) from public or private sources for the purpose of promoting research and development and giving financial assistance to junior academics regardless of whether such funds are made available to a researcher, to the institution as such or to one of its units (departments, schools, institutes, seminars, clinics) and regardless of whether and in what way (if at all) the institution's administration participates in their management (33, p. 7). Funds for special purposes (for example, for pilot projects, for financing the Fiebiger Plan, for overload programmes or structural measures) are not covered by this term. As a result, funds from third parties may be granted for specific projects or without any stated purpose. They may be allocated to an individual researcher to an institution or one of its units. The development of third party funds in the field of higher education since 1970 is shown in table II, 6.1.

### b) Origin of the funds from third parties

For statistical purposes, the Scientific Council distinguishes seven categories of fund-giving third parties:

- *Institutions for the promotion of research which are mainly funded by the government*, such as the German Society for the Advancement of Scientific Research (Deutsche Forschungsgemeinschaft, DFG) the Alexander von Humboldt Foundation (AvH), and the German Academic Exchange Service (Deutscher Akademischer Austauschdienst, DAAD). The resources made available by these institutions are shown in table II, 6.2.

- *Federal Ministries*. These are funds directly allocated to institutions either by Federal Ministries or, upon their request, by project sponsors. Table II, 6.3 shows how these resources have developed over the years.

- *Länder Ministries*. This category includes central funds made available by the Länder Governments for the promotion of research outside the framework of regular budgets (cf. II, 6.4).

- *Financial support for junior researchers*. These funds are allocated by the Federal and Länder Governments for financial aid to junior researchers either directly or as grants to the scholarship organisations for gifted students (cf. table II, 6.5).

- *International organisations*. Research is also funded by international and inter-governmental organisations. The Scientific Council has listed the following organisations in this category: European Economic Community, NATO Science Committee and the Special Fund of the European Recovery Program (ERP). Cf. II, 6.6.

- *Foundations and sponsoring societies*. In this category, the Scientific Council summarises the grants given by private foundations and sponsoring societies. It mentions the Volkswagenwerk Foundation (the biggest private foundation in the Federal Republic of Germany for the advancement of scientific research), twelve foundations surveyed by the Scientific Council, other foundations, the Federation of German Foundations (Stifterverband für die Deutsche Wissenschaft) and the foundation managed by it, and, finally, sponsoring societies (most higher education institutions and some of their establishments have private societies of friends and sponsors). Cf. II, 6.7.

- *Industry and trade associations*. This category comprises expenditure by private industry and its associations on scientific research and takes the form of research contracts (earned income) and donations (gifts). Included are the funds granted by the Working Party of Industrial Research Associations (Arbeitsgemeinschaft Industrieller Forschungsvereinigeigungen, AIF) for funding scientific research, the Chemical Industry Fund and gifts by trade and industry to institutions of higher education for scientific purposes.

c) Volume of funds from third parties

As the tables show, the contributions made by fund-giving third parties have developed in different ways. The grants received for *public and publicly-financed grantors* between 1980 and 1985 remained in real terms at the 1975 level. A marked increase (8.5 per cent) did not occur until 1985. It is interesting to note the increase in the resources granted to institutions by the Länder governments in 1985 for the promotion of research. More recent figures indicate that this trend is continuing. The same applies to the financial support for junior researchers although, in real terms, the funds spent on their support in 1985 were still far below the 1975 level.

In relative terms, expenditure by *industry* on the promotion of research has increased most in the past few years, mainly in the form of research

contracts (earned income). Even though the table shows estimated figures, it is safe to assume that such funds have risen substantially since the beginning of the eighties.

All in all, the funds granted to institutions by third parties between 1975 and 1985 doubled in nominal terms and amounted to DM 2 300 million in 1985. Adjusted for price increases, they rose by about 38 per cent. Thus, they have become a more and more important source of finance.

## VII. Funding of Medical Establishments

In contrast to other institutions, the medical schools are funded by a mixed system. According to the nomenclature of the Scientific Council, "medical establishments" mean the medical and dental clinics of the universities as well as all pre-clinical and technical facilities serving theoretical purposes in the field of medicine, and other establishments related to medicine and used at the universities for teaching human medicine. The number of university clinics funded by the law promoting the construction of higher education institutions currently amounts to 27.

Many of the medical schools earn their *own income* from the "sale" of services (mainly patient care, but other services as well). The contribution such income makes to covering recurrent expenditure has increased in the past decade from 53 per cent in 1978 to 70 percent in 1986. This means that at present rather less than one third of the recurrent expenditure of medical establishments has to be covered by grants from the Länder budgets.

*Capital expenditure* on buildings and large-scale scientific equipment is fully met by the Federal and Länder Governments, each contributing 50 percent, as for the whole sector of higher education.

The *problem* of mixed financing of recurrent expenses arises from the fact that such expenditure is split into expenditure on patient care and other services, on the one hand, and teaching and research expenditure, on the other. As detailed cost-accounting within medical schools would be extremely costly and complicated, the annual negotiations on the daily rate for nursing services between the health insurance organisations and the university clinics are based on estimates. These negotiations must observe the principle set 6;2cdown for patient-care rates under the Hospital Financing Act (27).

There are doubts as to whether the grants from the Länder budgets, which amount to about 30 per cent of recurrent expenditure, are in fact fully used for teaching and research at the medical schools. In 1983, for instance, estimates of the funds used for teaching and research varied considerably between 9.7 and 19.5 per cent (mean value 15.9 per cent). These figures confirm the assumption that part of the expenditure on patient care and other services provided by the medical branches of universities are covered by funds granted them for the purpose of teaching and research.

Table II, 7 shows how the appropriations of funds made available to medical schools from university budgets have developed. The Scientific Council, from which these figures are derived, utilises estimates which, however, are assumed to come close to reality.

## VIII. Development of Student Numbers

The tables in the Statistical Appendix from II, 8.1 to II, 8.7.2 show the development in the number of candidates qualified for higher education (II,8.1), new entrants (II, 8.2), the total number of students and their distribution across the various types of institution (II, 8.3), the distribution of students across the various study courses (II, 8.4), the duration of studies and the age at examination (II, 8.5), and the examinations (II, 8.6) and "habilitations" (qualification for lecturing at a university) (II, 8.7).

The number of those qualified for admission to universities and Fachhochschulen declined slightly for the first time between 1983 and 1984. The decline has continued since. As a proportion of the resident population of the same age group (Germans and foreigners) this group amounted to about 28 per cent in 1985.

In 1983 new entrants reached a maximum of 222 513. The number of German and foreign students in their first semester declined in 1984 for the first time by 5.1 per cent. In 1985 it dropped by another 6.6 per cent. Compared to the 1983 peak the decline was about 10 per cent.

Recently the number of new entrants has started to rise again. This confirms the assumption that many candidates who initially obtained some vocational training are now entering higher education at a later stage. Table II, 8.2.3. shows the ranking of the 52 universities in terms of new entrants.

Despite declining numbers of new entrants, the total number of German and foreign students again increased in 1984, 1985 and 1986. In the winter semester 1986/87 the enrolment was 1 336 271. The number of foreign students has been slightly less than 6 per cent of the total for many years.

The number of students continues to increase across the board but the rates vary depending on the type of institution. Thus, the number of students at universities increased by 1.9 per cent from the winter semester 1985/86 to the winter semester 1986/87; at comprehensive universities it increased by 3.7 per cent; at colleges of art by 2 per cent and at the Fachhochschulen by 4.3 per cent. The disproportionate increase of student numbers at Fachhochschulen continued in the winter semester 1987/88.

Table II, 8.4 sub-divided by areas of study shows a relatively consistent development. In some selected areas the figures are informative (new entrants 1985/86 compared to 1982/83):

| | |
|---|---|
| Study courses concluded with a diploma, state or master's degree examination | Total + 4.2 % |
| Amongst which: | |
| Languages and Literature, Arts | + 15.2 % |
| Law, Economics and Social Sciences | - 2.9 % |
| Mathematics, Natural Sciences | + 8.4 % |
| Engineering Sciences | - 9.8 % |
| Teacher-training courses | Total - 36.9 % |
| Study courses at Fachhochschulen (excluding Colleges of Public Administration) | Total + 1.1 % |
| Amongst which: | |
| Law, Economics and Social Sciences | - 1.9 % |
| Mathematics, Natural Sciences | + 30.7 % |
| Engineering Sciences | - 0.7 % |
| Colleges of Public Administration | Total - 3.4 % |

a) Restrictions on student admissions

At present, student admission continues to be limited in only ten subject areas. These are Architecture, Biology, Dental Medicine, Domestic and Nutritional Science, Food Chemistry, Medicine, Pharmacy, Psychology, Veterinary Medicine, Forestry, and Business management. Places in these courses are allocated by the Central Office for the Allocation of Study Places (Zentralstelle für die Vergabe von Studienplätzen, ZVS). For more details on the procedure see (25). The ZVS also allocates study places in Business Studies, Computer Science and Economics. Unlike the numerus clausus study courses, there is a place for every applicant in these three disciplines.

Data on the duration of study and the age of students sitting for their exams have been published only since 1977. In most subjects, the average duration of study has increased by 0.3 to 0.6 years between 1978 and 1984. The upward trend continues. The age at examination for the degree of diploma and corresponding academic degrees and for the teaching profession is between 26 and 28 years and thus 2 years higher than it is at the Fachhochschulen (II, 8.5.1).

b) Examinations

The total number of examinations passed by German students at the various institutions did not increase over the past few years in proportion with the number of new entrants and the total number of students. Institutions were therefore burdened with rising numbers of new students at a faster rate than they could be relieved through graduations. Since 1982, however, the number of graduates has steadily increased. The number of

students taking their doctor's degree ("Promotion") has been rising consistently for years. In 1985 13.954 German students earned their doctor's degree, half of them in medical courses of study. The comparisons of the 1985 figures with those of 1980 reveals an increase of 23 percent. The average age of all students who obtained a doctor's degree was a little over 31 years.

c) Habilitations

The number of graduates qualifying for lecturing at a university (Habilitation) varies at around 1.000 every year. The figure has not changed much in the past few years. Slightly more than one third of the habilitations were granted in the field of medicine.

The comparison of habilitations with the number of professors for 1984 shows differences within the various areas. In Medicine more than twice as many habilitations were granted as the average for all disciplines together. In Engineering Sciences the situation is just the reverse. Only 1.4 habitations per 100 professors were granted in 1984, whereas in Medicine the figure was 10.1 for the same year. The average age of those obtaining their habilitation (qualifying for lecturing at a university) has risen from 37.7 years in 1980 to 39 years in 1985.

*Chapter III*

## FINANCIAL SUPPORT FOR STUDENTS

### I. Preliminary Remarks

This chapter deals with financial support for students, including candidates for a doctor's degree and for habilitation. Since students do not pay tuition in the state-financed system of higher education, financial aid consists mainly of cost-of-living subsidies offered to students and junior researchers. The following sections describe the Government-funded support schemes under the Federal Education Assistance Act (section II), the support for university graduates (section III), and for the gifted provided by the scholarship organisations (section IV), and the support for those undertaking their habilitation (section V). There are still very few continuing education courses offered or courses for part-time students. Nor are there special schemes of financial support in this area.

### II. Financial Support under the Federal Education Assistance Act (Bundesausbildungsförderungsgesetz, BAföG)

The general concept of financial aid for students goes back to 1957. It was the result of a conference on the reform of the higher education system held by the West German university presidents in Bad Honnef in the autumn of 1955. It was attended by university teachers, students, representatives of the student organisations, and other qualified and interested members of the public. The "Honnefer Modell" named after this conference was the first state-financed assistance scheme for students offering financial aid on the basis of ability and need. For the financial support anticipated under this scheme an appropriation of DM 30 million was made in the 1957 Federal budget for the first time. In 1971 the "Honnefer Modell" was superseded by the Federal Education Assistance Act which has been amended several times since.

Thus, the "Honnefer Modell" and the Federal Education Assistance Act were the State's socio-political response to the discussion on the reform of the system of education in the sixties. Both were aimed at creating equal opportunities for all young people. The Federal Government's legislative intent was expressed on March 18, 1971 in the BAföG bill:

> "Up to now a large number of young people wanting to enter higher education and qualified to do so but whose parents are not in a position to bear the heavy costs of an education extending often over many years, have been denied a thorough education qualifying them to practice a profession, and this situation would continue unless the State were to increasingly assume responsibility. The socially-minded constitutional State which has to compensate social disparity by establishing an equitable social order has the obligation to aim at creating equal opportunities for all young people by offering them financial support according to their special requirements."

Compared to the "Honnefer Modell", the improvements under the new Act mainly consisted of granting to needy students a legal claim to financial support and doing away with the condition of above-average academic achievement for receiving it. Initially, financial support took the form of scholarships (non-repayable cost-of-living subsidies). Only in special situations, as when certain study periods were exceeded or a second study course was taken up, was the scholarship replaced by a loan.

The budgetary constraints of subsequent years and prevailing socio-economic factors were the reasons why, as early as 1974, part of the regular financial support was also granted in the form of a loan only. At present, the financial support for students takes the form of a loan apart from grants for study abroad. The loans are free of interest, with repayment due to begin 5 years after the termination of the maximum period of support laid down for each study course. The loan has to be paid back in fixed monthly instalments within a period of 20 years. Under certain conditions repayment can be deferred or the student may be dispensed from repaying parts of the loan.

The financial support depends on the student's ability and need. *Ability* is assumed to exist if the student's academic achievement justifies the expectation that he or she is going to reach the foreseen academic objective. During the first four subject-related semesters this is normally taken for granted. Only if there are well-founded doubts will an expert opinion be requested from the institution. From the fifth subject-related semester the student is required to submit evidence of his or her academic performance.

*Need* is assumed to exist if neither the student, given his or her own assets or income, nor his or her spouse or parents are able to bear the cost of living during the period of study. This means that, according to the principle of social welfare, the State will only provide financial aid if neither the student nor his or her family are able to assume the costs. On what conditions and to what extent the student or his or her family may be reasonably expected to bear the costs is decided on the basis of the provisions of the Federal Education Assistance Act and the ordinances issued in connection with it. For details see (1).

Details concerning the quantitative development of educational assistance are shown in Tables III, 2 of the Statistical Appendix. The data were taken from the Seventh Report of the Federal Government on the

Development of Financial Aid under the Federal Education Assistance Act. The number of students receiving financial support (III, 2.1) has declined since 1981. The percentage of students financially supported has dropped from 45.3 to 30 per cent. Since 1985 the figures have developed differently at universities and Fachhochschulen. At the latter the number of students receiving aid again rose from 93 000 to 96 000, whereas at the universities it continued to decline from 198 000 to 180 000.

Table III, 2.2 shows the distribution of students receiving financial support by types of institution and, related to it, the number of students living with their parents. The trend of previous years continues. The number of students living with their parents has dropped at all types of institutions. The number of female students being financially supported (III, 2.3) has remained at 37.1 per cent since 1984. This figure more or less corresponds to the proportion of women students within total student numbers. The trend towards a higher average age of the students receiving financial aid has continued (III, 2.4). In 1984, 4.9 per cent of those students were below the age of 24; in 1986 only 44.8 per cent were in that age category. With regard to the father's occupational status (III, 2.5) no basic change is observed. The development of the average monthly payments since 1979 reflects changes in price levels and parental income levels.

Table III, 2.7 shows the development of expenditure on student support by the Federal and Länder Governments and by the Federal Government alone. The figure reached a peak in 1981 when it was DM 2 028 million and has steadily declined since following the declining number of students receiving financial support. Financial support for students studying abroad has increased markedly as a result of the higher benefits paid to such students under the Federal Education Assistance Act (III, 2.8).

## III. Financial Support for Graduates

Post-graduate financial support is mainly offered to graduates working for their doctor's degree. There is no tradition of post-graduate study courses in Germany. Even study for a doctor's degree is usually not formalised. An exception is the few post-graduate colleges that have been established in the past 2 years or so on the recommendation of the Scientific Council or on the basis of private funding (29).

Financial support for graduates has developed in diverse ways in the past 20 years. Until 1971 it was the responsibility of the Länder Governments. After passing the Act on Financial Support for Graduates in 1971, the Federal Government first made a contribution of 65 per cent to the cost of financial support; up to 1975 the support was given as a grant, from 1976 onward as a loan. The funding provisions of the Act on Financial Support for Graduates (GradFöG) were repealed in 1983. Since 1984 the Länder Governments have again had their own legal provisions and are aiming at funding 2 200 scholarships.

Table III, 3 shows the expenditure of the Federal and Länder Governments on assistance for graduates. The funds spent by the Länder have again risen since 1984 but have not yet returned to the level of 1975 when 8 933 graduates, the highest number ever, received scholarships under this scheme.

## IV. Financial Support offered by the Scholarship Organisations for the Gifted

In addition to the financial assistance for graduates offered by the Länder, there are the scholarship organisations for the gifted. At present eight supra-regional organisations give financial support to candidates working on their doctor's degree and other research projects. The funds for financial aid offered by these organisations are almost exclusively made available through the Federal Government. These organisations are:

-- the German National Scholarship Foundation
(Studienstiftung des Deutschen Volkes)

-- the Konrad Adenauer Foundation

-- the Friedrich Ebert Foundation

-- the Friedrich Naumann Foundation

-- the Hans Böckler Foundation

-- the Hans Seidel Foundation

-- the Cusanus-Werk

-- the Evangelische Studienwerk Villigst

For further details on the activities of these scholarship organisations and the volume of assistance they offer, see (10).

Financial support granted by these organisations to candidates for a doctor's degree has increased remarkably since 1980 and, given the intentions of the Federal Government, it will be further increased. In 1984 about 1 600 candidates for a doctor's degree received financial support from these organisations. Grants by the Federal Government developed as shown in III, 4. Reference should also be made to II, 6.5, namely, financial support for graduates and candidates for a doctor's degree offered by the scholarship organisations for the gifted.

## V. Post-graduate Financial Support

In 1985 the Federal Government developed a financial support scheme for junior researchers who have obtained a doctorate. The scheme is implemented by the German Society for the Advancement of Scientific Research. Its objective is to give junior researchers a chance to improve their qualifications in basic research, especially for their future professional careers outside the university. "Habilitations" are not financially supported. The financial assistance under the scheme mentioned above includes research work abroad, and about 75 per cent of the scholarship holders make use of this opportunity. Altogether some 400 post-doctorate researchers and 2-year scholarships (with the possibility of extending the scholarship by one year) are supported by this scheme which has no time limit. The Federal Government has earmarked DM 13 million for it in the 1988 budget.

## *Chapter IV*

## INFLUENCE ON THE ORGANISATIONAL BEHAVIOUR OF HIGHER EDUCATION INSTITUTIONS AND THE EDUCATIONAL SERVICES THEY OFFER

A comparison of the current system of higher education with the situation at the beginning of the seventies reveals a number of basic changes. There has hardly ever been such fundamental change within an equally short period of time. In this Chapter we shall discuss to what extent the present situation conforms with the original plans and to what extent it was the change in financial arrangements that led to the change in the overall situation. Taking the point of departure as the goals outlined in Chapter I, the following statements can be made:

### I. Quantitative Goals

These have been reached to a large extent. In all Länder the supply of places is in line with demand, apart from some courses for which admission is still restricted (numerus clausus). The regional distribution of institutions may be considered well balanced. Thus, the principal goal of the expansion policy, as described in the 1973 master plan of education and in the skeleton plans completing it under the law promoting the construction of higher education institutions, has been essentially achieved. Nevertheless, the institutions located in big cities are still preferred by students. As a result, institutions in rural areas and smaller towns are starting to compete for students, a welcome side-effect from an education policy point of view. This success could not have been achieved without the consistent policy of expansion and improvement under the law promoting the construction of higher education institutions and without its financing mechanism which opened up access as planned to almost 25 per cent of the young generation.

### II. Structural Change

The efforts to bring about structural change were not equally successful in all areas, such as the composition of student numbers, differentiation of study courses offered, student distribution across various subjects and types of higher education institution, the introduction of continuing and in-service education courses, and the reduction of study periods.

a) Composition of student numbers

According to the common objectives, the number of women students was increased in many courses of study. All in all, the proportion of women students at universities has been almost 40 per cent since 1982, and 31 per cent at the Fachhochschulen. Nevertheless, the number of female students is still markedly below the proportion of women in the population if both sexes are to have equal professional opportunities. Female students are under-represented, especially in the Natural Sciences and, above all, in the Engineering Sciences. For more information on the situation of women in research and teaching cf. (9,12).

With regard to parental income levels, no major change in the composition of the student body has been observed in the last few years. The proportion of university students coming from workers' families has remained at 16 per cent since 1982.

Recent statistical studies lead to the conclusion that a rising number of young people qualifying for higher education have undergone vocational training (apprenticeships) before studying, which means that they claim a place two to three years later, with the result that the big decline in the number of candidates forecast for the beginning of the nineties may also be delayed by two or three years. Recent figures confirm this assumption. According to data provided by the Federal Statistical Office, the number of new entrants increased from 211 000 in 1986 to 233 000 in 1987, and the number of students from 1 368 000 in 1986 to 1 414 000 in 1987.

b) Differentiation of the study courses offered

For reasons inherent in the development of research as well as its practical application, the body of knowledge in the classical disciplines has expanded so much that it now goes far beyond the limits that must reasonably be set for a course of basic study (*). This is one of the reasons for excessively long study periods. The Scientific Council has urged several times that study courses be structured in such a way that they can be completed within the standard study period (*). As this cannot be accomplished solely by limiting the course content, attempts are being made to differentiate courses both horizontally and vertically (40, 41, 42, 43). Although most of the proposals made by the Scientific Council have met with the verbal agreement of the institutions, organisational measures based on them have only been taken in isolated cases.

c) Distribution across subjects and types of institution

The funding arrangements in force so far seem to have had little influence on the students' *selection of subjects* or disciplines. The number of those enrolling in Languages and Arts, an area where expansion has stopped, is still rising, whereas in Engineering Sciences student numbers continue to decline, despite the fact that this discipline is given preference in terms of funding. For economic reasons and reasons related to labour market needs it would be desirable if the demand for study places were to develop in the opposite direction.

The numbers of new entrants in Mathematics and Natural Sciences have developed quite satisfactorily. In these subjects new types of study courses incorporating interdisciplinary elements have proved to be successful. In particular, the integration of elements of Computer Sciences in Mathematics and Natural Sciences courses has enhanced student interest in those subjects. In some cases, the ministers responsible for institutions are supporting this development by making available central structural resources. This trend, however, welcome as it is from the point of view of policies for the reform of content, is still too limited within a few institutions to be considered a true breakthrough. More and more institutions are trying to initiate similar developments in Engineering Sciences. This is not least the result of closer co-operation between institutions and industry in response to increasingly evident shortages of young specialists in the field of new technologies.

As far as the *distribution across types of higher education institutions* is concerned, we can observe the increasing popularity of the Fachhochschulen (polytechnics). This development, which is desirable from the point of view of education policy, is not only the result of a deliberate expansion and improvement of the Fachhochschulen by the Länder Governments (II, 4.2) but of the willingness of these institutions to adapt their educational services more flexibly to labour market requirements. Moreover, the Fachhochschulen have so far succeeded better than the universities in keeping study periods within reasonable limits through the stringent organisation of courses.

d) Continuing and in-service education courses

In the preceding Chapter, it was already mentioned that there is no tradition of continuing education at universities. Apart from a few modest exceptions, there are no formalised follow-up or post-graduate study courses for graduates practising a profession or for adults engaging in studies for the first time in their life while having a job. There has been no lack of political efforts to motivate institutions to offer such forms of study. We refer to (2, 14, 16c, 31, 31b, 40) in this connection. But such efforts have so far had little success. They have failed mainly because of the universities' traditional view of their mission, which they regard first and foremost as being to cope with the rising number of school-leavers qualifying for admission (Abiturienten). The State, for its part, has had to concentrate all available resources on coping with the overload in traditional courses of study, with the result that there have been no adequate incentives for taking up new tasks and functions.

e) Reducing the duration of study

The persistent trend towards longer study periods has led to several attempts in the past 15 years to reduce the duration of study to a reasonable length. Recent inquiries have shown that shortcomings in the organisation of the system prolong the duration of study (16b). The Scientific Council has commented several times on this problem, as in its recommendations on the reorganisation of studies at universities (1966), on the structure and expansion of the system (1970), on the extent and structure of the tertiary sector of education (1976), on the differentiation of study courses (1978), on the functions and position of the Fachhochschulen (1981) and on the structure

of studies (1986). None of these efforts has been successful. Even the conversion of financial support for students from non-repayable grants to loans, which was expected to lead to a shortening of the duration of study, has had very limited effects.

There can be no doubt that very few students who obtain their higher education free of charge live up to the responsibility of structuring their own studies in an efficient and effective way. Nor do the universities, for their part, make sufficient efforts to develop more concentrated curricula and to improve the organisation of studies. Financial mechanisms have so far not become effective in this field.

Critics of the present funding system express the view, therefore, that the duration of study will only become shorter if the students themselves have to share the costs of their own education. These critics often suggest that, in order to avoid social hardship, students from low and medium-income families should be offered the opportunity of taking up study for a defined period by giving them generous financial support in the form of scholarships, fee subsidies and long-term loans. The principles and funding models discussed in this context and their effect on the system of higher education are outlined in (21, 23, 26).

## III. Safeguarding Research

The vigorously pursued policy of opening up higher education to a larger number of people has led to a concern on the part of universities that the rapid increase in student numbers could result in a concentration of recurrent funds on teaching and, consequently, in discrimination against research. However, official policy has consistently adhered to the principle of the unity of research and teaching. Nevertheless, recurrent expenditure on teaching and research per student in real terms has dropped by 50 per cent since 1970 (cf. table II, 4.2). This figure in itself, however, does not give a fair picture. It must be interpreted against a background of heavy capital expenditure by the Federal and Länder Governments during the phase of expansion; this expenditure not only supported the construction of institutions but also allowed them to equip new buildings with modern installations and large-scale scientific equipment. This modern equipment especially benefited research. Furthermore, university research was indirectly supported by third parties, especially through the German Society for the Advancement of Scientific Research, whose funds have steadily increased since 1970 (Table II, 6.2). In addition, research at universities benefits from increasingly closer co-operation with the institutes of the Max-Planck-Gesellschaft, the Fraunhofer-Gesellschaft, the large-scale research establishments and the research laboratories within industry. Even though the allocation of recurrent funds to universities for research and teaching urgently needs adjustment to the increased teaching load, especially in the interests of continued co-operation between the universities and the institutes mentioned, it cannot be denied that, all in all, the efforts to keep research and teaching roughly in balance have been successful despite the increased load during the expansion phase.

## IV. Ensuring the Quality of Education

During that phase complaints about the declining quality of academic achievement were raised by the institutions themselves as well as by the traditional employers of university graduates (civil service, industry, professional associations). There was, in fact, evidence of considerable variations in the standard of academic performance from one university to another and from one course to another, variations which might threaten the traditional equivalence of university degrees. Education policy tried to counteract this development in two different ways. First, by establishing study reform commissions and, secondly, by adopting fiscal measures.

The activity of the study reform commissions (*) (which cannot be dealt with in greater detail here) took a variety of directions (at one time the accent in their work was mainly on the practical orientation of content; at other times it was on integration within the comprehensive university system; in the end, it was placed more on maintaining basic academic standards; at the same time the streamlining of curricula was intended to enable students to master their courses within the standard duration of study)(*). The fiscal measures, on the other hand, aimed primarily at creating or maintaining adequate "student-teacher ratios". These ratios express the number of students per professor and the number of students per research staff member, and have constantly deteriorated (II,3), especially during the period of extreme overload (1981-1983). Recent figures confirm this trend.

In order to keep the numerical ratios at a reasonable level within those study courses with an excessively high number of students during the phase of peak demand for study places, the Länder started to develop so-called overload programmes (*) at the beginning of the eighties and financed them by means of additional resources. Few Länder, however, do this by creating more positions for research personnel. As a rule, overload funds are utilised only to hire additional teaching staff for a limited period. Table II, 4.3 shows how the overload programmes have developed in the various Länder.

An important contribution to the maintenance of academic standards is made by the scholarship organisations for gifted students. The scholarship holders of these organisations have a positive influence on other students by making them more achievement-oriented. In the past few years the public funds allocated to these organisations have been increased in real terms.

Altogether the transition from the "university for the elite" to the "university for the masses" has been essentially completed in quantitative terms. The counter-measures mentioned above have enabled negative effects on academic standards to be kept in check. The decline in the number of student applicants foreseen during the next few years, especially for overloaded study courses, will lead to further qualitative consolidation.

## V. Regional Balance of Higher Education Opportunities

This goal was intended to serve both balanced economic development in the various regions and an even distribution of educational facilities, thereby offering equal opportunities to all. Thanks to the financing mechanism provided under the law promoting the construction of institutions, it is fair to say that this goal has been reached.

## VI. Adaptation of Study Courses offered to Economic Development and the Requirements of the Labour Market

Closely connected with safeguarding the quality of education is the continuous adaptation of teaching to research developments in the various disciplines. The principle of the unity of research and teaching at universities thereby finds its legitimacy. In consequence, the growing tendency towards specialisation in the field of research has not failed to influence the development of teaching in the various courses of study.

The inter-dependence between research development and significant changes in labour-market requirements has also had its effect. The study reform commissions mentioned above have had little success in their attempts to make allowance for this inter-dependence. The result is that the expectations placed on them to update the contents of courses and to adjust them to research findings and the needs of the labour market proved too great a burden. The recent deliberations of the Scientific Council suggest that students should be given a solid basis of knowledge in their respective subjects during a concentrated period of initial studies and that any specialised studies should be re-located within continuing education and follow-up study courses (41).

The 1985 amendment of the Framework Act for Higher Education (Hochschulrahmengesetz) referred much of the responsibility for study reform back to the universities. With the compulsory supra-regional study reform commissions being abolished, the introduction of new types of courses was made easier.

## VII. Financial Support for Junior Researchers

The never-ending responsibility of higher education policy was affected in two ways by the rapid increase in faculty resulting from the opening up of access to more students. Thus, on the one hand, the increase in professorial posts led to an extraordinary improvement in the chances of junior staff obtaining a chair. On the other hand, the reservoir of qualified researchers at the beginning of the expansion phase was not large enough to allow all

newly created positions to be filled by well-qualified personnel. At times this led to a considerable decline in the quality of academic achievement. Moreover, many of the positions available at the end of the expansion phase were filled by relatively young specialists with the result that the following generation had very poor career prospects.

The most important instruments created to counteract this situation are the Heisenberg Programme (*), the Fiebiger Plan (*) and structural programmes of the Länder (*). (For details see page 13/14). Even though these instruments are not able to compensate for all the distortions of the normal age structure, they have made an important contribution in many areas by improving considerably the career prospects of junior staff.

## VIII. Improving Efficiency

In the seventies increasing financial needs put considerable pressure on institutions to use resources economically. The demand for greater efficiency met with a lot of interest and led to broad and lively discussions which have been reflected in a large number of publications. A detailed account is given in the 3-volume study entitled "Ökonomie der Hochschulen" (3), which was made in 1976 by WIBERA-Beratung AG, a project group, on behalf of the Federation of German Science Foundations.

These deliberations indirectly helped to develop the tools necessary for determining the "normal load" and, based on this, the "overload" of courses and to obtain capacity estimates for the expansion plans under the law promoting the construction of institutions. All in all, the efficiency debate has led to a moderate degree of rationalisation in the use of funds without imposing the management concepts of business enterprises on research and teaching.

## IX. Promoting Co-operation between Science and Industry

Based on economic and higher education policy considerations, the relations between science and industry, which had temporarily been disturbed in the seventies, once again became closer so as to accelerate and improve the transfer of know-how in both directions to the benefit of both partners. This policy is supported almost unanimously by the institutions themselves, the public authorities and the Scientific Council (39). As shown by the increase in funds from third parties deriving from research contracts between industry and the universities and their members and the science donations (Table II, 6.7), this policy, which is also reflected in the amendment of the Framework Act for Higher Education of 1985 (see p. 13 et seq.) has not been without its impact.

## *CHAPTER V*

## EVALUATION AND PROSPECTS

### I. Evaluation

As Chapter IV has shown, the development of higher education in the past 15 years presents a varied picture. If we evaluate the quantitative development by the yardstick of the general goals set, higher education policy has on the whole been successful. Although admission is still limited in some areas of study, in the end every candidate will, though perhaps after a waiting period, obtain a place in the area of his or her choice and usually at the preferred institution. Nevertheless, for students from low and medium-income groups, the cost of living will remain a heavy burden in the future, forcing them to raise loans or work their way through their studies.

The new institutions were mainly built in areas with a traditionally low provision of places or none at all. Overall, the geographical distribution is now well balanced in relation to population density.

At a more detailed level, there are still quantitative deficiencies in the following areas :

-- The number of women students is still too low, particularly in the Natural and Engineering Sciences. Such courses are less popular with students as a whole than courses in, for example, Social Sciences and the Humanities.

-- The percentage of female staff in the institutions shows that women are still at a disadvantage in research and teaching posts despite a slight improvement in recent years.

From the *social policy* point of view, the situation of students from medium-income groups needs to be improved. In its report on the financing of education in medium-income families, the Federal Government arrived at the conclusion that such families, as well as families whose children receive only meagre financial support under the Federal Education Assistance Act, often succumb to severe economic problems in fulfilling their statutory obligation to provide maintenance for their offspring, especially when several children are undergoing education at the same time, which puts them at a disadvantage compared to couples without children (20).

So far nothing has been done besides stating the facts and proposing solutions, although since 1986 the financial condition of medium-income families has somewhat improved thanks to changes in the fiscal regulations. The Federal Government has promised a solution for the second half of its legislative term of office.

As far as *qualitative* development is concerned, the results are far less favourable. The objectives of the studies and content reforms have not yet been achieved in many areas. The duration of studies has continued to lengthen or to stagnate at a level of more than 2 years beyond the standard period. Not even those that consider longer study periods acceptable, especially in view of the high rate of unemployment even amongst graduates from universities, would claim that they have helped to improve academic results.

In terms of structure and content, the conclusions to be drawn from the expansion of higher education have still to be drawn. In its recent recommendation on the structure of studies (41), the Scientific Council stresses the following problems:

-- Divergences between the educational programmes offered and student demand, the qualifications of teachers and the educational background and interests of students;

-- mixed ideas about what a study course requires, which lead to exaggerated and unrealistic expectations and demands;

-- overloaded curricula and slow adaptation of content and organisation to developments in research;

-- excessively long, subject-related study periods and an advanced age at entry into professional life with detrimental consequences for the development of personal, professional and family lives;

-- too little flexibility of courses in adjusting to labour-market requirements;

-- lack of opportunities for junior researchers with regard to post-graduate studies, research work and funding;

-- limited research opportunities.

Apart from a few isolated attempts (for example, some pilot projects for establishing post-graduate colleges and a few post-graduate follow-up courses), this important recommendation of the Scientific Council, which is based upon the problem analysis outlined above, has so far had little effect.

The recommendation of the Scientific Council on continuing education at higher education institutions (40) submitted in January 1983 was equally unsuccessful, although as early as 1982 the West German Rectors' Conference (West-deutsche Rektorenkonferenz) had adopted basic principles for developing continuing education courses to be offered by institutions and had laid down the conditions it considered necessary for fulfilling the statutory mandate (section 21 of the Framework Act for Higher Education). (31)

Study courses taken up while in employment have so far been offered mainly by the Distance (Open) University (Fernuniversität) in Hagen with increasing success (2). At other institutions, including those newly founded, adults having a job and wanting to study still meet with structural problems which, as a rule, can only be solved for the very few who are particularly persevering.

Overall, the *funds* allocated to institutions have become more scarce. This applies in particular to the recurrent and capital expenditure of universities and to allocations for research and teaching.

The basic funding of universities, that is, the recurrent funds for research and teaching, is in real terms, below the level of 1980 despite the increase in the number of students by about 30 per cent. The Scientific Council (38, p.35) says in this connection:

> The training of students, the academic education of junior scientists, and research are important tasks aiming at a long-term effect. They are among those investments into the future of our society that are most important to its further development. Since 1977/78 these investments have been stagnating. As gross national product and public budgets have risen in the meantime this leads to the conclusion that the level of public capital expenditure on research and scientific education (human capital) has continuously declined. This development in the pattern of finance in higher education is not sufficiently known to the public. Many believe that the funding of higher education institutions was linked only to the number of students and had actually been increased in the past with rising student numbers. This conception is ... wrong. from 1975 to 1986 the number of new entrants increased by 24 per cent and the number of students by 29 per cent, whereas the total public expenditure on higher education institutions and their members declined by 8 per cent in real terms.... The number of students alone is not and has never been an appropriate yardstick for measuring the financial requirements of higher education institutions. The financial needs of university research and academic training of junior scientists would be overlooked if that yardstick was used. To be consistent, the resources allocated to institutions of higher education should not be cut in proportion to the future decline in the number of students. The result would be that the overload conditions of the past 10 years would be reinterpreted as being the normal conditions and, as a result, the basic funding of research would deteriorate even more.
>
> In view of the development over the last 10 years, the question arises whether, in the long-run, a highly developed industrial society without a raw material base can afford to neglect, relative to other tasks, its investment in human capital through research and scientific education. There is the danger that the existing stock of qualifications and of research infrastructure at institutions of

higher education, which was built up in the sixties and seventies through the substantial expenditure for the expansion of the higher education system, will now be exhausted and that in the future an adequate basis for further scientific, technological, economic and social development will no longer exist.

Since the end of the seventies, capital expenditure on buildings and equipment has been declining along with the gradual termination of the expansion phase. If the annual appropriations in the Federal budget continue to decrease, the danger arises that the buildings erected in the sixties and seventies will become obsolete in terms of essential maintenance, operating installations and equipment. As far as large-scale equipment and computers are concerned, the Federal Government acted by increasing the appropriations and by initiating the computer investment programme in 1985 under the law promoting the construction of higher education institutions.

The Scientific Council points to the fact that, in order to maintain existing buildings, technological infrastructures and operating installations, considerable recurrent expenditure will be required:

> "Without investments in the replacement of capital assets the buildings will fast become obsolete. As a result, the institutions of higher education will lose their competitiveness as places of innovative research and high-quality teaching. The investment gap foreseeable for the future is a pressing problem. The Scientific Council points to the need for continuing capital expenditure on the replacement of existing facilities if higher education institutions are to remain efficient and achievement-oriented. It asks the Federal and Länder Governments and the Parliaments to earmark the necessary funds in their financial plans."

## II. Prospects

Whether the deficiencies and needs described in the preceding paragraph can be remedied in the next few years will depend on many imponderables. This is why the following prognosis is speculative, although it is based on experience gained in the past three decades in the field of higher education policy.

There are good reasons to expect that, with the continued decline in student numbers, the limitations of admission to numerus clausus courses (except for Medecine) will take care of themselves.

There is no expectation that, in the short term, institutions will be allocated more recurrent *funds* for research and teaching or for investments, in view of the fact that economic growth is less favourable than foreseen and because of the adverse effects of tax reform on public budgets.

As far as *investment* for the *replacement* of existing installations is concerned, there are not only fiscal problems to cope with. Whereas the repair and modernisation of existing buildings can be partially funded by the Federal Government under the law promoting the construction of higher education institutions, this does not apply to investment for the replacement of obsolete installations or installations that have become unusable. The Federal Government can only contribute to the financing of such investment if and when changes are made in the law. Such changes are advisable if the financing mechanism provided by the law, which has proved its value many times, is not to lose its effectiveness for institutions once the expansion phase comes to an end.

In the parliamentary debate the problem of *medium-income families* in financing their children in higher education is likely to become the test of the social equity of educational policy. As long as these middle-class families are not relieved from the financial burden of education, universities will lose the strong driving force that has traditionally been of great importance for them. This underlines the need for the draft proposals announced by the Federal Government.

The result of the efforts to bring about a general reform of higher education and a reform of structure and content hardly gives reason for greater optimism. As already mentioned, the deficiencies and needs far outweigh the modest successes achieved so far in a few areas.

The complete failure of efforts to limit the duration of undergraduate studies is another reason for pessimism. Several factors should be mentioned in this context, such as:

-- insufficient orientation of curricula towards the organisation of studies and to the standard duration of studies (*);

-- the lack of sanctions limiting study periods;

-- the excessive workload of the institutions and staff with duties in the field of teaching;

-- occasional ideological domination of the reform issues, which hardly serves to motivate those responsible.

The reason for expecting that, with decreasing student numbers in the nineties, the institutions' *willingness to reform*, that has been missing so far, will emerge automatically, is the competitive situation which will prevail in the future. Experience over the past 15 years does not justify this optimism. It would be more realistic to stop ignoring the effect of material motivation. In the higher education debate financial control mechanisms are therefore becoming more and more important.

The most urgent problem at present is how to maitain the financing of higher education within public budgets at least at current levels. The decline in the intake to institutions expected in the nineties must not be allowed to lead to cuts in budget appropriations. Such cuts would mean that the present overload conditions at institutions, and thus the financial paralysis with all its negative consequences for overdue reforms, would become permanent.

For this reason, the recent tendency observed in some Länder to question the justification for the existence of smaller institutions, which would mean questioning the very principle of regionalisation, is meeting with increasing resistance. Those opposing this trend point to the fact that it is precisely the smaller institutions that have taken the most interesting initiatives towards reform and that have had beneficial effects on regional economic conditions.

The Scientific Council, in particular, tries to counter restrictive budgetary trends by developing a future-oriented strategy for higher education focusing on the importance of investment in education as a means of safeguarding the future of the Federal Republic, which is a country poor in raw materials. The Scientific Council demands, therefore, more generous financial support for the young generation of highly qualified researchers, investment in innovative fields of research, strengthening of the self-interest of higher education institutions in obtaining funds from third parties, stimulating competition by means of a performance-oriented allocation of resources and the use of efficiency indicators, encouraging and promoting co-operation between the institutions and industry, and paying greater attention to long-term labour market trends.

The number of those proposing the reintroduction of tuition fees as a control instrument to improve financial flexibility within institutions is still very small. Thus, for instance, the current President of the German Society for the Advancement of Research, in contrast to the Scientific Council, considers tuition fees to be of great importance as a stimulus to competition among institutions (24, p. 30 et seq.).

No one should fail to realise that the reintroduction of tuition fees in the almost wholly state-financed system of higher education would have an effect on the social consensus reached after the Second World War and on a number of general political objectives, to which the efficiency and achievement capacity of higher education institutions have so far been subordinated. However, the debate on changing patterns of financing does not really imply radical changes such as the replacement of government by private funding or contributions towards operating costs by students. In so far as models of this type are being discussed, they are considered theoretical instruments for clarifying the economic functions of the education system. In practical terms, the debate concentrates on the question of whether, while adhering to the principle of a state-financed education system, part of the costs could be covered by tuition fees (also taking the form of fee subsidies) which would strengthen the students' self-responsibility and the achievement orientation of institutions and their staff.

In order to be successful, such a reform of the funding system would have to meet at least four basic requirements:

-- *Social equity*.
According to their needs, students should be granted scholarships (possibly in the form of fee subsidies) and loans under a better developed system of financial support for students.

-- *Competitive orientation*.
Higher education institutions and students should be offered a chance of selection, that is, students should have the possibility of applying for a place at the institution of their choice, and the institutions should have the right to select their students -- a claim which would, however, meet with considerable legal obstacles.

-- *Financial autonomy*.
The institutions should be free, within certain limits, to decide themselves about the use of the funds they derive from tuition fees.

-- *Avoiding excessive bureaucracy*.
Tuition fee models aiming at perfection could lead to a further increase in bureaucratic barriers inside and outside institutions. Therefore, the system should be as simple as possible.

At present tuition fee models of the type indicated cannot be introduced for first degree courses (*). As far as courses of continuing education are concerned -- which, as mentioned above, are becoming more and more important as they are in other countries -- such models can and should be tested.

It is difficult to guess whether the growing insight into the necessity of reforming the patterns of financing in higher education as described here will be followed by the appropriate political decisions. In any event, the chances of implementing the reform of content (on which there is wide-ranging consensus in the debate on higher education) without motivating institutions and their staffs by offering them simultaneous financial incentives are extremely slim.

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   The study deals with recent developments in the education of the gifted taking the USA (in detail) and a number of other selected countries (China, German Democratic Republic, Federal Republic of Germany, Indonesia, Japan, Israel, Canada, the Netherlands and Venezuela) as examples.

5. **Der Bundesminister für Bildung und Wissenschaft, Bonn**

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   Besides the relevant provisions for education assistance, the brochure contains a brief description of the conditions for being eligible for financial support, the period of support, the terms of repayment and selected examples.

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9. **Der Bundesminister für Bildung und Wissenschaft, Bonn**

   Frauen in Forschung und Lehre, 1985

   Compilation of lectures on the situation of women researchers and women teachers at German universities.

10. **Der Bundesminister für Bildung und Wissenschaft, Bonn**

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    The publication includes presentations by those who received scholarships from the scholarship organisations for the gifted and statistical material of the period from 1976 to 1984.

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The brochure takes up a subject that has been neglected and avoided for many years in the Federal Republic of Germany. It tries to convince the public of the necessity of taking further measures in the education of the gifted.

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The documentation of a discussion among experts shows that studying in addition to having a job does not have any tradition at German higher education institutions.

15. Der Bundesminister für Bildung und Wissenschaft, Bonn

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Report on the social situation of students submitted periodically (about every three years).

16. Der Bundesminister für Bildung und Wissenschaft, Bonn

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First proposals for a gradual procedure for introducing continuing education courses in higher education.

41. **Wissenschaftsrat, Köln**

**Empfehlungen zur Struktur des Studiums, 1986**

The most recent of the numerous statements of the Scientific Council on the study reform and proposals for new models.

42. **Wissenschaftsrat, Köln**

**Empfehlungen zum Wettbewerb im deutschen Hochschulsystem, 1985**

Description of the possibilities and limits of competition in higher education and suggestions for incentives.

43. **Wissenschaftsrat, Köln**

**Empfehlungen zu Aufgaben und Stellung der Fachhochschulen, 1981**

With this publication the Scientific Council outlines the functions of the Fachhochschulen within the system of higher education and recommends to further develop them in terms of quantity and quality.

**Pilot projects**

Projects for innovation in the field of education formally adopted by the Federal and Länder Commission for Educational Planning and Research Promotion (Bund-Länder-Kommission für Bildungsplanung und Forschungsförderung, BLK) and financed jointly by the Federal and Länder Governments.

**Skeleton Plan**

Since 1970 the expansion and construction of new higher education institutions including university clinics has been the joint responsibility of the Federal and Länder Governments on the basis of Art. 91a GG in compliance with the law promoting the construction of higher education institutions (Hochschulbauförderungsgesetz, HBFG). For accomplishing the joint task, the planning committee (§ 7 HBFG) formed by the Federal and Länder Governments shall develop a common skeleton plan which has a term of four years. The plan shows the progress of the expansion measures, the goals of the further expansion planned, projects of construction and purchase of new installations and the resources to be made available in the following year and those to be earmarked in subsequent years (§ 5 and § 6 HBFG).

The medium-term skeleton plans for the construction of higher education institutions are based on the general qualitative and quantitative objectives of the HBFG (§ 2). On this basis the Länder file their projects for inclusion in the plan by 1st March of every year (§ 8 HBFG). By 15 April of every year the Scientific Council has to make recommendations for the skeleton plan (§ 9 HBFG). By 1st July the plan has to be checked for subject matter, adapted to the development and updated for another year (§ 5 HBFG). The execution of the projects included in the plan is a matter of the Länder (§ 11 HBFG).

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**Standard study period**

The standard study period mentioned in the Framework Act for Higher Education refers to the time span in which, as a rule, the first degree qualifying for practising a profession can be aquired provided the coordination of study and the curricula offered make it possible. The standard study period shall not exceed four years. Exceptions are made in special cases for which reasons have to be given. In practice, however, this period is exceeded by more than fifty percent in universitiy study courses.

**Structural measures**

Since the beginning of the eighties some Länder have started to promote higher education reform projects (especially structural ones) considered necessary from the education policy point of view by paying grants from central funds to the institutions of higher education (such resources usually consist of funds earmarked in the budgets of the Ministry responsible for higher education institutions).

**Study reform commissions**

Before the amendment of the Framework Act for Higher Education in 1985 these commissions were provided for by law. They were responsible for promoting the reform of studies and examination regulations and for coordinating and supporting the reform work done at the various institutions. Study reform commissions were established in the Länder. Moreover, the Länder were supposed to form joint study reform commissions for the whole of the Federal Republic of Germany. The amended version of the Framework Act for Higher Education leaves it to the Länder Governments to dicide how they want to coordinate the study reform.

**Overload programmes**

By means of overload programmes the Länder make additional funds available to institutions of higher education for financing emergency measures for a limited period in overload study courses. The funds are allocated according to the capacities in these study courses which are computed on the basis of fixed rules. Additional funds from overload programmes are only made available when existing capacities have been fully used.

# STATISTICAL APPENDIX

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|---|---|---|---|
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II.1

Institutions of higher education subdivided by Länder of the Federal Republic of Germany

Baden-Württemberg

Universität Freiburg
Universität Heidelberg
Universität Hohenheim
Universität Karlsruhe
Universität Konstanz
Universität Mannheim
Universität Stuttgart
Universität Tübingen
Universität Ulm

Pädagogische Hochschule Esslingen
Berufspädagogische Hochschule Esslingen
Pädagogische Hochschule Freiburg
Pädagogische Hochschule Heidelberg
Pädagogische Hochschule Karlsruhe
Pädagogische Hochschule Lörrach
Pädagogische Hochschule Ludwigsburg
Pädagogische Hochschule Reutlingen
Pädagogische Hochschule Schwäbisch Gmünd
Pädagogische Hochschule Weingarten

Staatliche Hochschule für Musik Freiburg
Staatliche Hochschule für Musik Heidelberg-Mannheim
Staatliche Akademie der Bildenden Künste Karlsruhe
Staatliche Hochschule für Musik Karlsruhe
Staatliche Akademie der Bildenden Künste Stuttgart
Staatliche Hochschule für Musik und Darstellende Kunst Stuttgart
Staatliche Hochschule für Musik Trossingen

II.1 noch

noch Baden-Württemberg

Fachhochschule Aalen
Fachhochschule Biberach (Riß)
Fachhochschule für Sozialwesen Esslingen
Fachhochschule für Technik Esslingen
Fachhochschule Furtwangen
Fachhochschule Heilbronn
Fachhochschule Karlsruhe
Fachhochschule Konstanz
Fachhochschule für Sozialwesen Mannheim
Fachhochschule für Technik Mannheim
Fachhochschule Nürtingen
Fachhochschule Offenburg
Fachhochschule für Gestaltung Pforzheim
Fachhochschule für Wirtschaft Pforzheim
Fachhochschule Ravensburg-Weingarten
Fachhochschule für Technik und Wirtschaft Reutlingen
Fachhochschule für Gestaltung Schwäbisch-Gmünd
Fachhochschule für Technik Sigmaringen
Fachhochschule für Bibliothekswesen Stuttgart
Fachhochschule für Druck Stuttgart
Fachhochschule für Technik Stuttgart
Fachhochschule Ulm (Donau)

Bayern

Universität Augsburg
Universität Bamberg
Universität Bayreuth
Katholische Universität Eichstätt
Universität Erlangen-Nürnberg
Universität München
Technische Universität München
Universität Passau

II.1 noch

noch Bayern

Universität Regensburg
Universität Würzburg

Akademie der Bildenden Künste München
Hochschule für Musik München
Hochschule für Fernsehen und Film München
Akademie der Bildenden Künste Nürnberg
Hochschule für Musik Würzburg

Fachhochschule Augsburg
Fachhochschule Coburg
Fachhochschule Kempten
Fachhochschule Landshut
Fachhochschule München
Fachhochschule Nürnberg
Fachhochschule Regensburg
Fachhochschule Rosenheim
Fachhochschule Weihenstephan
Fachhochschule Würzburg-Schweinfurt

Berlin

Freie Universität
Technische Universität
Hochschule der Künste
Technische Fachhochschule
Fachhochschule für Wirtschaft
Fachhochschule für Sozialarbeit und Sozialpädagogik
Evangelische Fachhochschule für Sozialarbeit und Sozialpädagogik

II.1 noch

Bremen

Universität
Hochschule für gestaltende Kunst und Musik Bremen
Hochschule Bremen
Hochschule Bremerhaven

Hamburg

Universität
Technische Universität Hamburg-Harburg
Hochschule für Wirtschaft und Politik
Hochschule für Bildende Künste
Hochschule für Musik und Darstellende Kunst
Fachhochschule

Hessen

Technische Hochschule Darmstadt
Universität Frankfurt
Universität Gießen
Universität Marburg

Gesamthochschule Kassel

Hochschule für Musik und Darstellende Kunst Frankfurt am Main
Hochschule für Gestaltung Offenbach am Main

Fachhochschule Darmstadt
Fachhochschule Frankfurt am Main
Fachhochschule Fulda
Fachhochschule Gießen-Friedberg
Fachhochschule Wiesbaden

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II.1 noch

Niedersachsen

Technische Universität Braunschweig
Technische Universität Clausthal
Universität Göttingen
Universität Hannover
Tierärztliche Hochschule Hannover
Hochschule Hildesheim
Hochschule Lüneburg
Universität Oldenburg
Universität Osnabrück
Medizinische Hochschule Hannover
Hochschule für Bildende Künste Braunschweig
Hochschule für Musik und Theater Hannover

Fachhochschule Braunschweig/Wolfenbüttel
Fachhochschule Hannover
Fachhochschule Hildesheim/Holzminden
Fachhochschule Nordostniedersachsen
Fachhochschule Oldenburg
Fachhochschule Osnabrück
Fachhochschule Ostfriesland
Fachhochschule Wilhelmshaven

Nordrhein-Westfalen

Technische Hochschule Aachen
Universität Bielefeld
Universität Bochum
Universität Bonn
Universität Dortmund
Universität Düsseldorf
Universität Köln
Deutsche Sporthochschule Köln
Universität Münster

II.1 noch

noch Nordrhein-Westfalen

Universität-Gesamthochschule-Duisburg
Universität-Gesamthochschule-Essen
Fernuniversität Hagen als Gesamthochschule
Universität-Gesamthochschule-Paderborn
Universität-Gesamthochschule-Siegen
Universität-Gesamthochschule-Wuppertal

Staatliche Kunstakademie Düsseldorf (Hochschule für Bildende Künste)
Staatliche Hochschule für Musik Rheinland
Staatliche Hochschule für Musik Ruhr
Staatliche Hochschule für Musik Westfalen-Lippe

Fachhochschule Aachen
Fachhochschule Bielefeld
Fachhochschule Bochum
Fachhochschule Dortmund
Fachhochschule Düsseldorf
Fachhochschule Hagen
Fachhochschule Köln
Fachhochschule für Bibliotheks— und Dokumentationswesen Köln
Fachhochschule Lippe
Fachhochschule Münster
Fachhochschule Niederrhein

Rheinland-Pfalz

Universität Kaiserslautern
Universität Mainz
Universität Trier
Erziehungswissenschaftliche Hochschule Rheinland-Pfalz
Staatliche Fachhochschule

II.1 noch

Saarland

Universität des Saarlandes
Hochschule des Saarlandes
Musikhochschule des Saarlandes
Fachhochschule des Saarlandes

Schleswig-Holstein

Universität Kiel
Medizinische Hochschule Lübeck
Pädagogische Hochschule Flensburg
Pädagogische Hochschule Kiel

Musikhochschule Lübeck

Fachhochschule Flensburg
Fachhochschule Kiel
Fachhochschule Lübeck
Staatliche anerkannte Fachhochschule für Physikalische Technik und Informationstechnik, Wedel

II.3.1

Development of staff positions since 1970

| Jahr | Personalstellen insgesamt | davon | |
|---|---|---|---|
| | | wissenschaftl. Personal | nichtwissen. Personal |
| 1970 | 141.907 | 54.519 | 87.388 |
| 1975 | 205.021 | 78.113 | 126.908 |
| 1980 | 214.472 | 79.023 | 135.449 |
| 1981 | 217.174 | 79.614 | 137.560 |
| 1982 | 220.151 | 79.875 | 140.276 |
| 1983 | 220.609 | 80.057 | 140.552 |
| 1984 | 221.357 | 80.198 | 141.159 |
| 1985 | 222.409 | 80.465 | 141.944 |
| 1986 | 223.331 | 80.873 | 142.458 |

Positions for scientific staff by type of higher education institution

1970, 1975, 1980, 1985, 1986

| Hochschulart | 1970 | | 1975 | | 1980 | | 1985 | | 1986 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Anzahl | % | Anzahl | % | Anzahl | % | Anzahl | % | Anzahl | % |
| Universitäten | 38.024 | 69,7 | 49.755 | 63,7 | 47.810 | 60,6 | 46.758 | 58,1 | 46.708 | 57,8 |
| Gesamthochschulen | - | - | 3.187 | 4,1 | 4.155 | 5,3 | 4.121 | 5,1 | 4.111 | 5,1 |
| Kunsthochschulen | 934 | 1,7 | 1.609 | 2,1 | 1.811 | 2,3 | 1.973 | 2,5 | 1.982 | 2,4 |
| Fachhochschulen | 5.524 | 10,1 | 9.033 | 11,6 | 8.985 | 11,4 | 9.091 | 11,3 | 9.108 | 11,3 |
| Zentralstellen | 848 | 1,6 | 441 | 0,5 | 256 | 0,3 | 626 | 0,8 | 888 | 1,1 |
| Zusammen | 45.331 | 83,1 | 64.025 | 82,0 | 63.017 | 79,9 | 62.569 | 77,8 | 62.797 | 77,7 |
| Medizinische Einrichtungen | 9.188 | 16,9 | 14.088 | 18,0 | 15.852 | 20,1 | 17.896 | 22,2 | 18.076 | 22,3 |
| Insgesamt | 54.519 | 100 | 78.113 | 100 | 78.869 | 100 | 80.465 | 100 | 80.873 | 100 |

II.3.2

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II.3.3

## Central funds for scientific staff

1980, 1983, 1986

| Land<br>-<br>Zweckbestimmung | 1980 | | 1983 | | 1986 | |
|---|---|---|---|---|---|---|
| | insgesamt | darunter Professoren | insgesamt | darunter Professoren | insgesamt | darunter Professoren |
| Baden-Württemberg | 6 | - | 1 | - | 113 | 35 |
| davon: | | | | | | |
| Allg. Hochschulangelegenh. | 6 | - | 1 | - | 33 | 5 |
| Überlastprogramme | - | - | - | - | - | - |
| Fiebiger-Plan | - | - | - | - | 80 | 80 |
| Forschungsförderung | - | - | - | - | - | - |
| Bayern | 147 | 21 | 207 | 94 | 457 | 236 |
| davon: | | | | | | |
| Allg. Hochschulangelegenh. | 147 | 21 | 46 | 15 | 233 | 117 |
| Überlastprogramme | - | - | 161 | 79 | 184 | 79 |
| Fiebiger-Plan | - | - | - | - | 40 | 40 |
| Forschungsförderung | - | - | - | - | - | - |
| Hessen[2] | . | . | . | . | 241 | 158 |
| davon: | | | | | | |
| Allg. Hochschulangelegenh. | . | . | . | . | - | - |
| Überlastprogramme | . | . | . | . | 178 | 145 |
| Fiebiger-Plan | . | . | . | . | 10 | 10 |
| Forschungsförderung | . | . | . | . | 13 | 3 |
| Niedersachsen | 46 | 26 | 52 | 26 | 140 | 46 |
| davon: | | | | | | |
| Allg. Hochschulangelegenh. | - | - | - | - | - | - |
| Überlastprogramme | 26 | 6 | 39 | 18 | 79 | 30 |
| Fiebiger-Plan | - | - | - | - | 15 | 15 |
| Forschungsförderung | 20 | 20 | 13 | 8 | 46 | 1 |
| Rheinland-Pfalz | - | - | 66 | - | 142 | 11 |
| davon: | | | | | | |
| Allg. Hochschulangelegenh. | - | - | - | - | - | - |
| Überlastprogramme | - | - | 66 | - | 105 | - |
| Fiebiger-Plan | - | - | - | - | 3 | 3 |
| Forschungsförderung | - | - | - | - | 34 | 8 |
| Schleswig-Holstein | - | - | - | - | 35 | 35 |
| davon: | | | | | | |
| Allg. Hochschulangelegenh. | - | - | - | - | - | - |
| Überlastprogramme | - | - | - | - | 35 | 35 |
| Fiebiger-Plan | - | - | - | - | - | - |
| Forschungsförderung | | | | | - | - |

1) In Berlin wurden außerdem 1986 12 Fiebiger-Professuren an der FU und 6 Fiebiger-Professuren an der TU geschaffen.- 2) Da der Nachweis bei den einzelnen Hochschulen erfolgt, gibt es keinen separaten Nachweis im Zentralkapitel (Tabelle 8).

II.4.1

Recurrent funds for research and teaching
at the institutions of higher education
(Federal results)

- BUNDESERGEBNISSE -

| JAHR | LFD. MITTEL NOMINAL MIO DM | LFD. MITTEL NOMINAL 1980=100 | LFD. MITTEL REAL MIO DM | LFD. MITTEL REAL 1980=100 | PREISINDEX* 1980=100 | STELLEN FÜR WISSENSCHAFTL. PERSONAL |
|---|---|---|---|---|---|---|
| (1) LAUFENDE MITTEL INSGESAMT | | | | | | |
| 1980 | 1497. | 100.0 | 1497. | 100.0 | 100.0 | 63126 |
| 1981 | 1536. | 102.6 | 1464. | 97.8 | 104.9 | 62638 |
| 1982 | 1449. | 96.8 | 1336. | 89.2 | 108.5 | 62363 |
| 1983 | 1515. | 101.2 | 1359. | 90.8 | 111.5 | 62544 |
| 1984 | 1645. | 109.9 | 1451. | 96.9 | 113.4 | 62456 |
| 1985 | 1778. | 118.8 | 1534. | 102.5 | 115.9 | 62501 |
| 1986(SOLL) | 1861. | 124.3 | 1569. | 104.8 | 118.6 | 62691 |
| (2) LAUFENDE MITTEL INSGESAMT JE STELLE WISSENSCHAFTLICHEN PERSONALS (FINANZBETRÄGE IN DM) | | | | | | |
| 1980 | 23717. | 100.0 | 23717. | 100.0 | | |
| 1981 | 24518. | 103.4 | 23373. | 98.5 | | |
| 1982 | 23242. | 98.0 | 21421. | 90.3 | | |
| 1983 | 24223. | 102.1 | 21725. | 91.6 | | |
| 1984 | 26346. | 111.1 | 23233. | 98.0 | | |
| 1985 | 28411. | 119.8 | 24513. | 103.4 | | |
| 1986(SOLL) | 29687. | 125.2 | 25031. | 105.5 | | |

* PREISINDEX FÜR DEN STAATSVERBRAUCH, 1980=100
** NUR WISSENSCHAFTLICHE HOCHSCHULEN
QUELLE: ANGABEN DER LÄNDER NACH DEN HAUSHALTSPLÄNEN, EIGENE BERECHNUNGEN.

## II.4.1 noch

LAUFENDE MITTEL FÜR FORSCHUNG UND LEHRE IN DEN HOCHSCHULEN
(HOCHSCHUL- UND ZENTRALMITTEL).
NOMINAL, REAL SOWIE JE STELLE FÜR WISSENSCHAFTLICHES PERSONAL

- BUNDESERGEBNISSE -

| JAHR | LFD. MITTEL NOMINAL | | LFD. MITTEL REAL | | PREISINDEX* 1980=100 | STELLEN FÜR WISSENSCHAFTL. PERSONAL |
|---|---|---|---|---|---|---|
| | MIO DM | 1980=100 | MIO DM | 1980=100 | | |
| (3) LAUFENDE MITTEL DER WISSENSCHAFTLICHEN HOCHSCHULEN INSGESAMT | | | | | | |
| 1970** | 487. | 36.1 | 970. | 72.0 | 50.2 | 38873. |
| 1975** | 982. | 72.9 | 1229. | 91.2 | 79.9 | 53383. |
| 1980 | 1347. | 100.0 | 1347. | 100.0 | 100.0 | 52362 |
| 1981 | 1378. | 102.3 | 1314. | 97.5 | 104.9 | 51808 |
| 1982 | 1287. | 95.5 | 1187. | 88.1 | 108.5 | 51471 |
| 1983 | 1345. | 99.8 | 1206. | 89.5 | 111.5 | 51693 |
| 1984 | 1454. | 107.9 | 1282. | 95.1 | 113.4 | 51482 |
| 1985 | 1558. | 115.6 | 1344. | 99.7 | 115.9 | 51459 |
| 1986(SOLL) | 1626. | 120.7 | 1371. | 101.7 | 118.6 | 51509 |
| (4) LAUFENDE MITTEL DER WISSENSCHAFTLICHEN HOCHSCHULEN INSGESAMT JE STELLE WISSENSCHAFTLICHEN PERSONALS (FINANZBETRÄGE IN DM) | | | | | | |
| 1970** | 12530. | 48.7 | 24959. | 97.0 | | |
| 1975** | 18397. | 71.5 | 23025. | 89.5 | | |
| 1980 | 25734. | 100.0 | 25734. | 100.0 | | |
| 1981 | 26607. | 103.4 | 25364. | 98.6 | | |
| 1982 | 25012. | 97.2 | 23053. | 89.6 | | |
| 1983 | 26019. | 101.1 | 23335. | 90.7 | | |
| 1984 | 28239. | 109.7 | 24902. | 96.8 | | |
| 1985 | 30260. | 117.6 | 26116. | 101.5 | | |
| 1986(SOLL) | 31562. | 122.7 | 26612. | 103.4 | | |

* PREISINDEX FÜR DEN STAATSVERBRAUCH, 1980=100
** NUR WISSENSCHAFTLICHE HOCHSCHULEN
QUELLE: ANGABEN DER LÄNDER NACH DEN HAUSHALTSPLÄNEN, EIGENE BERECHNUNGEN.



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# II.4.2

## Recurrent funds per student by type of higher education institution at constant prices, Federal and Länder results

(1) Laufende Mittel (Realbeträge[1]) je Student nach Hochschularten 1970[2], 1975[2], 1980 bis 1986

| Jahr | Wissenschaftliche Hochschulen (ohne Medizin) | | | Kunsthochschulen | | | Fachhochschulen (ohne Verw. FH) | | |
|---|---|---|---|---|---|---|---|---|---|
| | Mio. DM real | Studenten | DM/Stud. | Mio. DM real | Studenten | DM/Stud. | Mio. DM real | Studenten | DM/Stud. |
| 1970 | 970 | 372.814 | 2.602 | - | 10.456 | - | - | 102.804 | - |
| 1975 | 1229 | 625.017 | 1.966 | - | 15.343 | - | - | 142.525 | - |
| 1980 | 1347 | 740.169 | 1.820 | 36 | 18.044 | 1.995 | 114 | 174.302 | 654 |
| 1981 | 1314 | 795.984 | 1.651 | 44 | 18.867 | 2.332 | 106 | 192.067 | 552 |
| 1982 | 1187 | 811.276 | 1.411 | 41 | 19.405 | 2.113 | 109 | 214.934 | 507 |
| 1983 | 1206 | 880.734 | 1.369 | 42 | 20.141 | 2.085 | 110 | 240.420 | 458 |
| 1984 | 1282 | 905.346 | 1.416 | 44 | 20.860 | 2.109 | 125 | 258.125 | 484 |
| 1985 | 1344 | 917.989 | 1.464 | 46 | 21.464 | 2.143 | 145 | 268.082 | 541 |
| 1986[3] | 1371 | 1.034.816 | 1.325 | 44 | 21.890 | 2.010 | 154 | 279.565 | 551 |

1) Diskontiert mit dem Preisindex für den Staatsverbrauch (1980 = 100).- 2) 1970 und 1975 nur Wissenschaftliche Hochschulen.- 3) Vorläufige Ergebnisse, Anteil der Medizinstudenten geschätzt.

(2) Laufende Mittel (Realbeträge[1]) je Student nach Hochschularten in den Ländern[2] 1985,

| Land | Wissenschaftliche Hochschulen (ohne Medizin) | | | Kunsthochschulen | | | Fachhochschulen (ohne Verw. FH) | | |
|---|---|---|---|---|---|---|---|---|---|
| | Mio. DM real | Studenten | DM/Stud. | Mio. DM real | Studenten | DM/Stud. | Mio. DM real | Studenten | DM/Stud. |
| Baden-Württemberg | 215 | 127.523 | 1.684 | 11 | 3.848 | 2.747 | 33 | 36.707 | 913 |
| Bayern | 265 | 141.741 | 1.866 | 6 | 2.442 | 2.327 | 26 | 46.239 | 555 |
| Berlin | 148 | 71.596 | 2.060 | 12 | 4.234 | 2.914 | 11 | 7.836 | 1.447 |
| Bremen | 13 | 8.680 | 1.438 | - | - | - | 3 | 5.612 | 565 |
| Hamburg | 30 | 40.800 | 747 | 2 | 1.580 | 1.150 | 7 | 12.350 | 601 |
| Hessen | 105 | 74.362 | 1.416 | 3 | 1.227 | 2.169 | 13 | 29.394 | 426 |
| Niedersachsen | 108 | 90.188 | 1.204 | 3 | 1.792 | 1.734 | 11 | 22.220 | 507 |
| Nordrhein-Westfalen | 368 | 293.445 | 1.253 | 7 | 5.913 | 1.264 | 24 | 80.902 | 294 |
| Rheinland-Pfalz | 43 | 38.390 | 1.107 | - | - | - | 5 | 15.216 | 352 |
| Saarland | 24 | 14.997 | 1.597 | 0,5 | 267 | 1.978 | 2 | 2.886 | 553 |
| Schleswig-Holstein | 26 | 17.094 | 1.527 | 1 | 362 | 3.934 | 9 | 9.464 | 942 |
| Länder insgesamt | 1344 | 917.989 | 1.464 | 46 | 21.890 | 2.010 | 154 | 279.565 | 551 |

1) Diskontiert mit dem Preisindex für den Staatsverbrauch (1980 = 100).- 2) Statistisches Bundesamt, Vorberichte zur Studentenstatistik.

## II.4.3

### Development of central funds

| | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 |
|---|---|---|---|---|---|---|---|
| | | | - Nominalbeträge - | | | | |
| Zentralmittel, nominal | 120 | 126 | 114 | 128 | 167 | 222 | 295 |
| davon: | | | | | | | |
| Allg. Aufwendungen | 13 | 18 | 22 | 28 | 29 | 36 | 56 |
| Forschungsförderung | 65 | 59 | 47 | 45 | 55 | 82 | 101 |
| Überlast | 22 | 28 | 33 | 48 | 75 | 89 | 103 |
| Graduiertenförderung | 21 | 21 | 12 | 7 | 8 | 20 | 35 |
| Anteil der Zentralmittel an den laufenden Mitteln insgesamt | 7,9% | 8,1% | 7,8% | 8,3% | 10,0% | 12,8% | 15,8% |
| | | | - Realbeträge - | | | | |
| Zentralmittel, real | 120 | 120 | 105 | 115 | 147 | 196 | 249 |
| davon: | | | | | | | |
| Allg. Aufwendungen | 13 | 17 | 21 | 25 | 26 | 31 | 48 |
| Forschungsförderung | 65 | 56 | 43 | 40 | 49 | 71 | 85 |
| Überlast | 22 | 27 | 36 | 43 | 66 | 77 | 87 |
| Graduiertenförderung | 21 | 20 | 11 | 6 | 7 | 17 | 30 |

II.4.4

Recurrent funds of selected institutions of higher education (and annex)

| Hochschulgruppe | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 [1] |
|---|---|---|---|---|---|---|---|
| | in Millionen DM | | | | | | |
| | - Nominalbeträge - | | | | | | |
| Alte Hochschulen | 583 | 596 | 566 | 587 | 623 | 650 | 647 |
| Technische Hochschulen | 265 | 268 | 255 | 271 | 295 | 317 | 320 |
| Neugründungen 1. Phase | 148 | 152 | 130 | 132 | 137 | 144 | 148 |
| Neugründungen 2. Phase | 139 | 143 | 137 | 141 | 147 | 146 | 157 |
| | - Realbeträge - | | | | | | |
| Alte Hochschulen | 583 | 568 | 521 | 527 | 550 | 561 | 545 |
| Technische Hochschulen | 265 | 256 | 234 | 243 | 260 | 273 | 270 |
| Neugründungen 1. Phase | 148 | 144 | 119 | 119 | 121 | 124 | 125 |
| Neugründungen 2. Phase | 139 | 136 | 127 | 126 | 129 | 126 | 132 |
| | - Realbeträge (1980=100) - | | | | | | |
| Alte Hochschulen | 100 | 97,5 | 89,5 | 90,4 | 94,3 | 96,2 | 93,5 |
| Technische Hochschulen | 100 | 96,3 | 88,5 | 91,6 | 98,1 | 103,0 | 101,8 |
| Neugründungen 1. Phase | 100 | 97,7 | 80,8 | 80,2 | 81,5 | 83,8 | 84,5 |
| Neugründungen 2. Phase | 100 | 98,5 | 91,4 | 91,1 | 93,3 | 91,0 | 95,6 |

1) Haushaltsansätze.

# II.4.4 (Annex)

Verzeichnis ausgewählter Hochschulen nach Hochschulgruppen

Alte Hochschulen

Freie Universität Berlin
Universität Erlangen-Nürnberg
Universität Frankfurt
Universität Freiburg
Universität Gießen
Universität Göttingen
Universität Hamburg
Universität Heidelberg
Universität Kiel
Universität Köln
Universität Mainz
Universität Marburg
Universität München
Universität Münster
Universität Saarbrücken

Technische Hochschulen

Technische Hochschule Aachen
Technische Universität Berlin
Technische Universität Braunschweig
Technische Universität Clausthal
Technische Hochschule Darmstadt
Universität Hannover
Universität Karlsruhe
Technische Universität München
Universität Stuttgart

Neugründungen 1. Phase

Universität Augsburg
Universität Bielefeld
Universität Bochum
Universität Bremen
Universität Dortmund
Universität Konstanz
Universität Regensburg

Neugründungen 2. Phase

Universität Bamberg
Universität Bayreuth
Universität - Gesamthochschule - Duisburg
Universität - Gesamthochschule - Essen
Universität Kaiserslautern
Gesamthochschule Kassel
Universität Oldenburg
Universität Osnabrück
Universität - Gesamthochschule - Paderborn
Universität Passau
Universität - Gesamthochschule - Siegen
Universität Trier
Universität - Gesamthochschule - Wuppertal

II.5.1

Actual capital expenditure under the law promoting the construction of higher education institutions (Hochschulbauförderungsgesetz, HBFG)

| Jahr | Ist-Ausgaben insgesamt nominal | Ist-Ausgaben insgesamt real | darunter (nominal) für: Universitäten | | Medizinische Einrichtungen | | Gesamthochschulen | | Pädagogische Hochschulen | | Kunst- und Musikhochschulen | | Fachhochschulen | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Mio DM | | Mio DM | % | Mio DM | % | Mio DM | % | Mio DM | % | Mio DM | % | Mio DM | % |
| 1974 | 3.166 | 4.491 | 1.602 | 50,6 | 1.062 | 33,5 | 200 | 6,3 | 101 | 3,2 | 33 | 1,0 | 159 | 5,0 |
| 1975 | 2.957 | 4.101 | 1.433 | 48,5 | 997 | 33,7 | 211 | 7,1 | 83 | 2,8 | 20 | 0,7 | 166 | 5,6 |
| 1976 | 2.643 | 3.543 | 1.182 | 44,7 | 914 | 34,6 | 311 | 11,8 | 56 | 2,1 | 8 | 0,3 | 165 | 6,2 |
| 1977 | 2.215 | 2.832 | 961 | 43,4 | 813 | 36,7 | 243 | 11,0 | 35 | 1,6 | 10 | 0,5 | 159 | 7,2 |
| 1978 | 1.881 | 2.264 | 739 | 39,3 | 896 | 47,6 | 116 | 6,2 | 16 | 0,9 | 9 | 0,5 | 95 | 5,1 |
| 1979 | 1.861 | 2.059 | 716 | 38,5 | 852 | 45,8 | 143 | 7,7 | 11 | 0,6 | 7 | 0,4 | 119 | 6,4 |
| 1980 | 2.155 | 2.155 | 760 | 35,3 | 1.041 | 48,3 | 148 | 6,9 | 10 | 0,5 | 18 | 0,8 | 162 | 7,5 |
| 1981 | 2.210 | 2.087 | 814 | 36,8 | 1.068 | 48,3 | 133 | 6,0 | 8 | 0,4 | 20 | 0,9 | 143 | 6,5 |
| 1982 | 2.258 | 2.073 | 880 | 39,0 | 1.071 | 47,4 | 126 | 5,6 | 4 | 0,2 | 36 | 1,6 | 154 | 6,8 |
| 1983 | 2.300 | 2.068 | 823 | 35,8 | 1.099 | 47,8 | 141 | 6,1 | -7 | -0,3 | 38 | 1,7 | 179 | 7,8 |
| 1984 | 2.234 | 1.960 | 836 | 37,4 | 981 | 43,9 | 91 | 4,1 | -4 | -0,2 | 43 | 1,9 | 203 | 9,1 |
| 1985 | 2.174 | 1.899 | 691 | 31,8 | 930 | 42,8 | 102 | 4,7 | 6 | 0,3 | 38 | 1,7 | 195 | 9,0 |
| 1986 | 2.435 | 2.095 | . | . | . | . | . | . | . | . | . | . | . | . |

# II.5.2

## Capital expenditure under the HBFG in the Länder of the Fed. Republic, 1974 - 1986

| Land | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 [1] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Beträge in Millionen DM | | | | | | | | | | | | |
| | (1) Nominalbeträge | | | | | | | | | | | | |
| Baden-Württemberg | 441 | 436 | 364 | 282 | 232 | 299 | 407 | 358 | 388 | 392 | 379 | 397 | 526 |
| Bayern | 434 | 421 | 345 | 369 | 327 | 294 | 306 | 302 | 260 | 277 | 301 | 347 | 393 |
| Berlin | 86 | 169 | 132 | 144 | 165 | 164 | 161 | 186 | 175 | 194 | 183 | 139 | 147 |
| Bremen | 114 | 65 | 38 | 26 | 21 | 21 | 13 | 8 | 7 | 14 | 12 | 20 | 12 |
| Hamburg | 152 | 98 | 62 | 46 | 37 | 42 | 69 | 88 | 113 | 70 | 73 | 95 | 104 |
| Hessen | 216 | 236 | 184 | 157 | 168 | 147 | 166 | 175 | 169 | 209 | 217 | 196 | 184 |
| Niedersachsen | 449 | 318 | 277 | 216 | 103 | 127 | 188 | 213 | 250 | 291 | 285 | 191 | 233 |
| Nordrhein-Westfalen | 1.112 | 1.052 | 1.037 | 790 | 678 | 623 | 686 | 709 | 699 | 651 | 508 | 484 | 476 |
| Rheinland-Pfalz | 76 | 82 | 113 | 94 | 66 | 68 | 79 | 84 | 116 | 103 | 106 | 145 | 162 |
| Saarland | 22 | 21 | 21 | 17 | 16 | 19 | 15 | 14 | 11 | 22 | 36 | 43 | 54 |
| Schleswig-Holstein | 64 | 61 | 69 | 75 | 66 | 55 | 65 | 72 | 70 | 78 | 133 | 118 | 144 |
| Länder insgesamt | 3.166 | 2.957 | 2.643 | 2.215 | 1.881 | 1.861 | 2.155 | 2.210 | 2.258 | 2.300 | 2.234 | 2.174 | 2.435 |
| | (2) Realbeträge (Preise von 1980) | | | | | | | | | | | | |
| Baden-Württemberg | 626 | 605 | 488 | 361 | 279 | 331 | 407 | 338 | 356 | 353 | 332 | 347 | 453 |
| Bayern | 616 | 584 | 462 | 472 | 394 | 326 | 306 | 285 | 239 | 249 | 264 | 303 | 338 |
| Berlin | 122 | 234 | 177 | 184 | 199 | 181 | 161 | 176 | 161 | 174 | 161 | 121 | 127 |
| Bremen | 162 | 90 | 51 | 33 | 25 | 23 | 13 | 8 | 6 | 13 | 11 | 17 | 10 |
| Hamburg | 216 | 136 | 83 | 59 | 45 | 46 | 69 | 83 | 104 | 63 | 64 | 83 | 90 |
| Hessen | 306 | 327 | 247 | 201 | 202 | 163 | 166 | 165 | 155 | 188 | 190 | 171 | 158 |
| Niedersachsen | 637 | 441 | 371 | 276 | 124 | 140 | 188 | 201 | 230 | 262 | 250 | 167 | 201 |
| Nordrhein-Westfalen | 1.577 | 1.459 | 1.390 | 1.010 | 816 | 689 | 686 | 669 | 642 | 585 | 446 | 423 | 410 |
| Rheinland-Pfalz | 108 | 114 | 151 | 120 | 79 | 75 | 79 | 79 | 107 | 93 | 93 | 127 | 139 |
| Saarland | 31 | 29 | 28 | 22 | 19 | 21 | 15 | 13 | 10 | 20 | 32 | 38 | 46 |
| Schleswig-Holstein | 91 | 85 | 92 | 96 | 79 | 61 | 65 | 68 | 64 | 70 | 117 | 103 | 124 |
| Länder insgesamt | 4.491 | 4.101 | 3.543 | 2.832 | 2.264 | 2.059 | 2.155 | 2.087 | 2.073 | 2.068 | 1.960 | 1.899 | 2.095 |
| | (3) Realbeträge (1980 = 100) | | | | | | | | | | | | |
| Baden-Württemberg | 153 | 149 | 120 | 89 | 69 | 81 | 100 | 83 | 88 | 87 | 82 | 85 | 111 |
| Bayern | 201 | 191 | 151 | 154 | 129 | 107 | 100 | 93 | 78 | 81 | 86 | 99 | 111 |
| Berlin | 76 | 146 | 110 | 114 | 124 | 112 | 100 | 109 | 100 | 108 | 100 | 75 | 79 |
| Bremen | 1.246 | 692 | 392 | 254 | 192 | 177 | 100 | 62 | 46 | 100 | 85 | 131 | 77 |
| Hamburg | | 197 | 120 | 86 | 65 | 67 | 100 | 120 | 151 | 91 | 93 | 120 | 130 |
| Hessen | 184 | 197 | 149 | 121 | 122 | 98 | 100 | 99 | 93 | 113 | 115 | 103 | 95 |
| Niedersachsen | 339 | 235 | 197 | 147 | 66 | 75 | 100 | 107 | 122 | 139 | 133 | 89 | 107 |
| Nordrhein-Westfalen | 230 | 213 | 203 | 147 | 119 | 100 | 100 | 98 | 94 | 85 | 65 | 62 | 60 |
| Rheinland-Pfalz | 137 | 144 | 191 | 152 | 100 | 95 | 100 | 100 | 135 | 118 | 118 | 161 | 176 |
| Saarland | 207 | 193 | 187 | 147 | 107 | 140 | 100 | 87 | 67 | 133 | 213 | 253 | 307 |
| Schleswig-Holstein | 140 | 131 | 142 | 148 | 122 | 94 | 100 | 105 | 99 | 108 | 160 | 159 | 191 |
| Länder insgesamt | 208 | 190 | 164 | 131 | 105 | 96 | 100 | 97 | 96 | 96 | 91 | 88 | 97 |

1) Vorläufiges Ergebnis.

II.5.3

Cost of the large-scale equipment bought from 1973 to 1986 (without CIP)

| Jahr | Kosten insgesamt | | davon nominal für | | |
|---|---|---|---|---|---|
| | nominal | real | Wissensch. Hochschulen | Medizin. Einrichtungen | Fachhoch-schulen |
| | Millionen DM | | | | |
| 1973 | 85,4 | 95,5 | 61,1 | 15,6 | 8,8 |
| 1974 | 92,1 | 108,3 | 46,7 | 39,8 | 5,7 |
| 1975 | 103,5 | 112,6 | 49,4 | 45,2 | 8,7 |
| 1976 | 115,6 | 116,0 | 74,2 | 37,3 | 4,2 |
| 1977 | 128,9 | 138,2 | 57,7 | 63,9 | 7,2 |
| 1978 | 119,2 | 122,2 | 61,0 | 50,9 | 7,3 |
| 1979 | 171,9 | 175,1 | 57,8 | 106,3 | 7,8 |
| 1980 | 263,9 | 263,9 | 111,9 | 122,0 | 30,0 |
| 1981 | 140,9 | 136,7 | 69,2 | 66,9 | 4,8 |
| 1982 | 154,9 | 143,1 | 64,8 | 86,2 | 3,9 |
| 1983 | 244,5 | 215,8 | 93,5 | 145,7 | 5,4 |
| 1984 | 288,4 | 257,5 | 135,5 | 141,4 | 11,5 |
| 1985 | 398,6 | 347,7 | 184,4 | 200,0 | 14,1 |
| 1986 | 449,2 | . | . | . | . |

# II.5.4

## Capital expenditure under the computer investment programme 1985/1986

| Land | | Empfohlene Geräte im CIP 1985 | | | | | Empfohlene Geräte im CIP 1986 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Anzahl d. Pools | Arbeitsplätze Anzahl | % | Kosten in 1.000 DM | % | Anzahl d. Pools | Arbeitsplätze Anzahl | % | Kosten in 1.000 DM | % |
| 1 | | 2 | 3 | 4 | 5 | 6 | 2 | 3 | 4 | 5 | 6 |
| Baden-Württemberg | a | 53 | 646 | 19,5 | 12.252 | 21,3 | 6 | 68 | 2,1 | 997 | 1,5 |
| | b | - | - | - | - | - | 22 | 324 | 10,0 | 5.493 | 8,5 |
| | i | 53 | 646 | 19,5 | 12.252 | 21,3 | 28 | 392 | 12,0 | 6.490 | 10,0 |
| Bayern | a | 34 | 421 | 12,7 | 7.769 | 13,5 | 29 | 455 | 14,0 | 9.665 | 14,9 |
| | b | 9 | 105 | 3,2 | 1.767 | 3,1 | 14 | 169 | 5,2 | 3.372 | 5,2 |
| | i | 43 | 526 | 15,9 | 9.536 | 16,6 | 43 | 624 | 19,2 | 13.037 | 20,1 |
| Berlin | a | 6 | 71 | 2,1 | 1.524 | 2,7 | 14 | 162 | 5,0 | 3.670 | 5,7 |
| | b | 3 | 42 | 1,3 | 570 | 1,0 | 2 | 36 | 1,1 | 797 | 1,2 |
| | i | 9 | 113 | 3,4 | 2.094 | 3,6 | 16 | 198 | 6,1 | 4.467 | 6,9 |
| Bremen | a | 2 | 48 | 1,5 | 444 | 0,8 | 3 | 48 | 1,5 | 870 | 1,3 |
| | b | - | - | - | - | - | 2 | 30 | 0,9 | 434 | 0,7 |
| | i | 2 | 48 | 1,5 | 444 | 0,8 | 5 | 78 | 2,4 | 1.304 | 2,0 |
| Hamburg | a | 4 | 37 | 1,1 | 794 | 1,4 | 7 | 68 | 2,1 | 1.466 | 2,3 |
| | b | 1 | 9 | 0,3 | 155 | 0,3 | 3 | 32 | 1,0 | 646 | 1,0 |
| | i | 5 | 46 | 1,4 | 949 | 1,7 | 10 | 100 | 3,1 | 2.112 | 3,3 |
| Hessen | a | 13 | 153 | 4,6 | 1.972 | 3,4 | - | - | - | - | - |
| | b | 20 | 225 | 6,8 | 3.034 | 5,3 | -1) | 17 | 0,5 | 321 | 0,5 |
| | i | 33 | 378 | 11,4 | 5.006 | 8,7 | -1) | 17 | 0,5 | 321 | 0,5 |
| Niedersachsen | a | 33 | 420 | 12,7 | 7.380 | 12,8 | 29 | 280 | 8,6 | 6.485 | 10,0 |
| | b | 8 | 81 | 2,4 | 1.627 | 2,8 | 13 | 154 | 4,7 | 3.096 | 4,8 |
| | i | 41 | 501 | 15,1 | 9.007 | 15,7 | 42 | 434 | 13,3 | 9.581 | 14,8 |
| Nordrhein-Westfalen | a | 47 | 549 | 16,6 | 9.929 | 17,3 | 62 | 793 | 24,4 | 16.077 | 21,7 |
| | b | 18 | 190 | 5,7 | 3.168 | 5,5 | 14 | 157 | 4,8 | 2.655 | 4,1 |
| | i | 65 | 739 | 22,3 | 13.097 | 22,8 | 76 | 950 | 29,2 | 16.732 | 25,8 |
| Rheinland-Pfalz | a | 21 | 214 | 6,5 | 3.722 | 6,5 | 16 | 215 | 6,6 | 5.181 | 8,0 |
| | b | 8 | 96 | 2,9 | 1.362 | 2,4 | 4 | 49 | 1,5 | 925 | 1,4 |
| | i | 29 | 310 | 9,4 | 5.084 | 8,8 | 20 | 264 | 8,1 | 6.106 | 9,4 |
| Saarland | a | - | - | - | - | - | 3 | 43 | 1,3 | 900 | 1,4 |
| | b | - | - | - | - | - | 2 | 26 | 0,8 | 449 | 0,7 |
| | i | - | - | - | - | - | 5 | 69 | 2,1 | 1.349 | 2,1 |
| Schleswig-Holstein | a | - | - | - | - | - | 8 | 81 | 2,5 | 2.058 | 3,2 |
| | b | - | - | - | - | - | 5 | 47 | 1,4 | 1.211 | 1,9 |
| | i | - | - | - | - | - | 13 | 128 | 3,9 | 3.269 | 5,0 |
| Zusammen | a | 213 | 2.559 | 77,4 | 45.786 | 79,7 | 177 | 2.213 | 68,0 | 45.369 | 70,0 |
| | b | 67 | 748 | 22,6 | 11.683 | 20,3 | 81 | 1.041 | 32,0 | 19.399 | 30,0 |
| | i | 280 | 3.307 | 100,0 | 57.469 | 100,0 | 258 | 3.254 | 100,0 | 64.768 | 100,0 |

1) Erweiterung bestehender Pools an den Fachhochschulen Frankfurt und Gießen/Friedberg

a = Wissenschaftliche Hochschulen
b = Fachhochschulen
i = insgesamt

# II.6.1

## Third party funds of higher education institutions

| Mittelgeber/ Sektor | 1970 | 1975 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 |
|---|---|---|---|---|---|---|---|---|
| | | | - Nominalbeträge - | | | | | |
| Öffentliche Mittelgeber zusammen | 460,2 | 995,0 | 1.263,3 | 1.296,9 | 1.344,9 | 1.358,0 | 1.447,7 | 1.605,4 |
| davon: | | | | | | | | |
| Überregionale Förderinstitutionen | 322,4 | 623,8 | 825,7 | 860,0 | 898,6 | 913,4 | 949,2 | 979,0 |
| Bund | 90,0 | 270,0 | 331,1 | 336,4 | 364,9 | 370,0 | 408,5 | 460,3 |
| Länder | 39,0 | 29,3 | 63,5 | 57,7 | 45,3 | 43,1 | 54,8 | 107,7 |
| Wissenschaftlicher Nachwuchs | 8,8 | 71,9 | 32,7 | 32,1 | 25,1 | 19,1 | 21,9 | 45,7 |
| Internationale Organisationen | . | . | 10,3 | 10,7 | 11,0 | 12,4 | 13,5 | 12,7 |
| Stiftungen und Fördergesellschaften | 113,8 | 98,0 | 156,7 | 188,7 | 164,6 | 156,3 | 176,3 | 204,5 |
| Wirtschaft und Verbände | 76,6 | 62,0 | 181,9 | 223,4 | 288,0 | 352,8 | 430,3 | 499,1 |
| Drittmittel insgesamt | 650,6 | 1.155,0 | 1.601,9 | 1.709,0 | 1.797,5 | 1.867,1 | 2.054,3 | 2.309,0 |
| | | | - Realbeträge - (in Preisen von 1980) | | | | | |
| Öffentliche Mittelgeber zusammen | 916,7 | 1.245,3 | 1.263,3 | 1.236,3 | 1.239,5 | 1.217,9 | 1.276,6 | 1.385,2 |
| davon: | | | | | | | | |
| Überregionale Förderinstitutionen | 642,2 | 780,7 | 825,7 | 819,8 | 828,2 | 819,2 | 837,0 | 844,7 |
| Bund | 179,3 | 337,9 | 331,1 | 320,7 | 336,3 | 331,8 | 360,2 | 397,2 |
| Länder | 77,8 | 36,7 | 63,5 | 55,0 | 41,7 | 38,6 | 48,4 | 92,9 |
| Wissenschaftlicher Nachwuchs | 17,5 | 90,0 | 32,7 | 30,6 | 23,1 | 17,1 | 19,1 | 39,4 |
| Internationale Organisationen | . | . | 10,3 | 10,2 | 10,1 | 11,1 | 11,9 | 11,0 |
| Stiftungen und Fördergesellschaften | 226,8 | 122,7 | 156,7 | 179,9 | 151,6 | 140,1 | 155,5 | 176,4 |
| Wirtschaft und Verbände | 152,6 | 77,6 | 181,9 | 213,0 | 265,4 | 316,4 | 379,5 | 430,6 |
| Drittmittel insgesamt | 1.296,0 | 1.445,6 | 1.601,9 | 1.629,2 | 1.656,7 | 1.674,5 | 1.811,6 | 1.992,2 |
| | | | - Realbeträge - (Meßzahl 1980 = 100) | | | | | |
| Öffentliche Mittelgeber zusammen | 72,6 | 98,6 | 100 | 97,9 | 98,1 | 96,4 | 101,1 | 109,6 |
| davon: | | | | | | | | |
| Überregionale Förderinstitutionen | 77,8 | 94,6 | 100 | 99,3 | 100,3 | 99,2 | 101,4 | 102,3 |
| Bund | 54,2 | 102,1 | 100 | 96,9 | 101,6 | 100,2 | 108,8 | 120,0 |
| Länder | 122,5 | 57,8 | 100 | 86,6 | 65,7 | 60,8 | 76,2 | 146,3 |
| Wissenschaftlicher Nachwuchs | 53,5 | 275,2 | 100 | 93,6 | 70,9 | 52,3 | 58,4 | 120,5 |
| Internationale Organisationen | . | . | 100 | 99,0 | 98,1 | 107,8 | 115,5 | 106,8 |
| Stiftungen und Fördergesellschaften | 144,7 | 78,3 | 100 | 114,8 | 96,7 | 89,4 | 99,2 | 112,4 |
| Wirtschaft und Verbände | 83,9 | 42,7 | 100 | 117,1 | 145,9 | 173,9 | 208,6 | 236,7 |
| Drittmittel insgesamt | 80,9 | 90,2 | 100 | 101,7 | 103,4 | 104,5 | 113,1 | 124,4 |

II.6.2

Funds made available by DFG, AvH and DAAD together

| Förderinstitution | 1970 | 1975 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 |
|---|---|---|---|---|---|---|---|---|
| | | | | - Nominalbeträge - | | | | |
| DFG | 305,0 | 589,0 | 773,3 | 805,1 | 841,3 | 857,1 | 891,2 | 919,4 |
| AvH | 7,4 | 19,6 | 28,6 | 29,7 | 30,9 | 30,3 | 31,8 | 33,6 |
| DAAD | 10,0s | 15,2 | 23,8 | 25,2 | 26,4 | 26,0 | 26,2 | 26,0s |
| Nominalbeträge zusammen | 322,4 | 623,8 | 825,7 | 860,0 | 898,6 | 913,4 | 949,2 | 979,0 |
| | | | | - Realbeträge - | | | | |
| DFG | 607,6 | 737,2 | 773,3 | 767,5 | 775,4 | 768,7 | 785,9 | 793,3 |
| AvH | 14,7 | 24,5 | 28,6 | 28,3 | 28,5 | 27,2 | 28,0 | 29,0 |
| DAAD | 19,9 | 19,0 | 23,8 | 24,0 | 24,3 | 23,3 | 23,1 | 22,4 |
| Realbeträge zusammen | 642,2 | 780,7 | 825,7 | 819,8 | 828,2 | 819,2 | 837,0 | 844,7 |

## II.6.3

Expenditure of the Federal Government on research and development at higher education institutions by Ministries

| Ressort | 1970 | 1975 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 |
|---|---|---|---|---|---|---|---|---|
| | | | | - Nominalbeträge - | | | | |
| Bundesminister des Innern | . | . | 22,1 | 17,5 | 13,3 | 21,5 | 23,5 | 28,7 |
| Bundesminister für Verkehr | . | . | 7,3 | 6,8 | 6,0 | 5,9 | 6,6 | 5,8 |
| Bundesminister der Verteidigung | . | . | 10,6 | 9,7 | 13,2 | 13,4 | 14,6 | 17,9 |
| Bundesminister für Jugend, Familie, Frauen und Gesundheit | . | . | 10,3 | 9,4 | 9,2 | 8,6 | 8,9 | 13,9 |
| Bundesminister für Forschung und Technologie | . | 230,9 | 264,6 | 278,0 | 308,8 | 305,4 | 339,7 | 375,5 |
| Bundesminister für Bildung und Wissenschaft | . | . | 7,0s | 6,1 | 7,4 | 7,1 | 7,3 | 9,5 |
| Andere Ressorts | . | . | 9,2 | 8,9 | 7,0 | 8,0 | 7,7 | 9,0 |
| Projektmittel des Bundes für Hochschulen insgesamt | 90s | 270s | 331,1s | 336,4 | 364,9 | 370,0 | 408,5 | 460,3 |
| | | | | - Realbeträge - | | | | |
| ittel des Bundes, real' | 179,3 | 337,9 | 331,1 | 320,7 | 336,3 | 331,8 | 360,2 | 397,2 |

s = estimated

Quelle: Bundesministerium für Forschung und Technologie.

Central funds of the Länder for the promotion of research

| Land | 1970 | 1975 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985[1] |
|---|---|---|---|---|---|---|---|---|
| | | | | - Nominalbeträge - | | | | |
| Baden-Württemberg | - | - | - | - | - | 1.516 | 3.172 | 39.897 |
| Bayern | 9.598 | 1.778 | 12.018 | 8.148 | 8.124 | 9.344 | 7.248 | 16.987 |
| Berlin | - | - | 1.202 | 3.918 | 3.875 | 6.859 | 10.476 | 11.932 |
| Bremen | - | - | 825 | 442 | 418 | 468 | 572 | 750 |
| Hamburg | - | - | - | 37 | 201 | 274 | 360 | 146 |
| Hessen | 152 | 57 | 66 | 47 | 52 | 22 | 191 | 1.891 |
| Niedersachsen | 195 | 302 | 411 | 400 | 421 | 465 | 2.899 | 2.621 |
| Nordrhein-Westfalen | 28.804 | 26.856 | 48.748 | 44.370 | 31.872 | 23.804 | 29.485 | 32.020 |
| Rheinland-Pfalz | 160 | 200 | 61 | 190 | 51 | 99 | 172 | 1.190 |
| Saarland | - | - | - | - | - | - | - | - |
| Schleswig-Holstein | 125 | 117 | 140 | 108 | 246 | 218 | 265 | 265 |
| Länder insgesamt | 39.034 | 29.310 | 63.471 | 57.660 | 45.260 | 43.069 | 54.840 | 107.699 |
| | | | | - Realbeträge - | | | | |
| Länder insgesamt, real[2] | 77.757 | 36.683 | 63.471 | 54.967 | 41.714 | 38.627 | 48.360 | 92.924 |

[1] Haushaltsansätze.

[2] Diskontiert mit dem Preisindex für den Staatsverbrauch (1980=100).

Quelle: Wissenschaftsrat: Erhebung der laufenden Mittel für Forschung und Lehre 1985, Köln 1986, Übersicht C und Tabelle 2.

II.6.4

80

84

85

II.6.5

Financial support for graduates and candidates for a doctor's degree offered by the scholarship organisations for the gifted

| Nachwuchsförderung | 1970 | 1975 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 |
|---|---|---|---|---|---|---|---|---|
| | | | | - Nominalbeträge - | | | | |
| Graduiertenförderung | 5,5 | 60,9 | 21,3 | 21,5 | 13,1 | 7,0 | 7,6 | 26,2 |
| Begabtenförderung | 3,3 | 11,0 | 11,4 | 10,6 | 12,0 | 12,1 | 14,1 | 19,5 |
| Insgesamt | 8,8 | 71,9 | 32,7 | 32,1 | 25,1 | 19,1 | 21,7 | 45,7 |
| | | | | - Realbeträge -[1] | | | | |
| Graduiertenförderung | 11,0 | 76,2 | 21,3 | 20,5 | 12,1 | 6,3 | 6,7 | 22,6 |
| Begabtenförderung | 6,6 | 13,8 | 11,4 | 10,1 | 11,1 | 10,9 | 12,4 | 16,8 |
| Insgesamt | 17,5 | 90,0 | 32,7 | 30,6 | 23,1 | 17,1 | 19,1 | 39,4 |

Abweichungen in den Summen erklären sich durch Runden der Zahlen.

[1] Diskontiert mit dem Preisindex für den Staatsverbrauch (1980 = 100).

II.6.6

Promotion of research at German universities by international organisations

| Organisation | 1970 | 1975 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 |
|---|---|---|---|---|---|---|---|---|
| | | | - Nominalbeträge - | | | | | |
| EG | . | . | 5,9s | 6,2 | 6,3 | 5,6 | 5,9 | 5,9s |
| NATO | . | . | 1,6 | 1,7 | 3,1 | 4,8 | 5,2 | 4,0 |
| ERP | . | . | 2,8 | 2,8 | 1,6 | 2,0 | 2,4 | 2,8s |
| Insgesamt | . | . | 10,3 | 10,7 | 11,0 | 12,4 | 13,5 | 12,7 |
| | | | - Realbeträge - [1] | | | | | |
| EG | . | . | 5,9 | 5,9 | 5,8 | 5,0 | 5,2 | 5,1 |
| NATO | . | . | 1,6 | 1,6 | 2,9 | 4,3 | 4,6 | 3,5 |
| ERP | . | . | 2,8 | 2,7 | 1,5 | 1,8 | 2,1 | 2,4 |
| Insgesamt, real | . | . | 10,3 | 10,2 | 10,1 | 11,1 | 11,9 | 11,0 |

s = geschätzt

Abweichungen in den Summen erklären sich durch Runden der Zahlen.

[1] Diskontiert mit dem Preisindex für den Staatsverbrauch (1980 = 100).

II.6.7

Allocation of funds for university research by foundations and sponsoring societies

| Stiftungen | 1970 | 1975 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 |
|---|---|---|---|---|---|---|---|---|
| | | | | - Nominalbeträge - | | | | |
| Stiftung Volkswagenwerk | 78,7 | 41,3 | 65,6 | 91,3 | 80,1 | 67,8 | 75,7 | 97,0 |
| Weitere 12 ausgewählte Stiftungen[1] | 10,0 | 22,5 | 37,8 | 45,6 | 25,7 | 26,0 | 33,7 | 35,8 |
| Andere Stiftungen[2] | 14,7 | 21,0 | 30,0 | 30,0 | 30,0 | 30,0 | 30,0 | 30,0 |
| Stifterverband und von ihm betreute Stiftungen | 6,0 | 8,9 | 16,1 | 13,8 | 18,6 | 20,0 | 21,9 | 24,2 |
| Fördergesellschaften | 4,4 | 4,3 | 7,2 | 8,0 | 10,2 | 12,5 | 15,0 | 17,5 |
| Insgesamt | 113,8 | 98,0 | 156,7 | 188,7 | 164,6 | 156,3 | 176,3 | 204,5 |
| | | | | - Realbeträge -[3] | | | | |
| Stiftung Volkswagenwerk | 156,8 | 51,7 | 65,6 | 87,0 | 73,8 | 60,8 | 66,8 | 83,7 |
| Weitere 12 ausgewählte Stiftungen[1] | 19,9 | 28,2 | 37,8 | 43,5 | 23,7 | 23,3 | 29,7 | 30,9 |
| Andere Stiftungen[2] | 29,3 | 26,3 | 30,0 | 28,6 | 27,6 | 26,9 | 26,5 | 25,9 |
| Stifterverband und von ihm betreute Stiftungen | 12,0 | 11,1 | 16,1 | 13,2 | 17,1 | 17,9 | 19,3 | 20,9 |
| Fördergesellschaften | 8,8 | 5,4 | 7,2 | 7,6 | 9,4 | 11,2 | 13,2 | 15,1 |
| Insgesamt | 226,8 | 122,7 | 156,7 | 179,9 | 151,6 | 140,1 | 155,5 | 176,4 |

Abweichungen in den Summen erklären sich durch Runden der Zahlen.

Schätzzahlen sind nicht gesondert ausgewiesen.

[1] Von der Geschäftsstelle des Wissenschaftsrates ermittelt.

[2] Von der Geschäftsstelle des Wissenschaftsrates geschätzt.

[3] Diskontiert mit dem Preisindex für den Staatsverbrauch (1980 = 100).

University funds derived from research contracts with industry and AIF, and donations to science

| Herkunft der Mittel | 1970 | 1975 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 |
|---|---|---|---|---|---|---|---|---|
| | | | | - Nominalbeträge - [1] | | | | |
| Unternehmen | 50,0s | 32,0 | 140,0s | 176,9s | 234,5s | 292,2s | 360,0s | 430,0s |
| AIF | 7,1 | 13,3 | 22,5 | 23,9 | 28,7 | 31,0 | 37,6 | 33,7 |
| Wissenschafts-spenden | 19,5s | 16,7 | 19,4s | 22,6 | 24,8s | 29,6 | 32,7s | 35,4s |
| Insgesamt | 76,6s | 62,0 | 181,9s | 223,4s | 288,0s | 352,8s | 430,3s | 499,1s |
| | | | | - Realbeträge - [1] | | | | |
| Unternehmen | 99,6s | 40,1 | 140,0s | 168,6s | 216,1s | 262,1s | 317,5s | 371,0s |
| AIF | 14,1 | 16,6 | 22,5 | 22,8 | 26,5 | 27,8 | 33,2 | 29,1 |
| Wissenschafts-spenden | 38,8s | 20,9 | 19,4s | 21,5 | 22,9s | 26,5 | 28,8s | 30,5s |
| Insgesamt | 152,6s | 77,6 | 181,9s | 213,0s | 265,4s | 316,4s | 379,5s | 430,6s |

[1] Diskontiert mit dem Preisindex für den Staatsverbrauch (1980=100).

s = Schätzung, vgl. die Erläuterungen im Text zu Übersicht 20 und 23.
Abweichungen in den Summen erklären sich durch Runden der Zahlen.

II.7

Total expenditure of medical establishments and expenditure on teaching and research
- Millionen DM -

| | 1978 | 1980 | 1982 | 1984 | 1985 |
|---|---|---|---|---|---|
| (1) Gesamtausgaben nominal (in jeweiligen Preisen) | | | | | |
| Gesamtausgaben | 6.421 | 7.386 | 8.441 | 9.241 | 9.844 |
| davon: | | | | | |
| Investitionen | 929 | 1.064 | 1.184 | 1.182 | 1.133 |
| Laufende Ausgaben | 5.492 | 6.322 | 7.257 | 8.059 | 8.711 |
| (2) Gesamtausgaben real (in Preisen von 1980) | | | | | |
| Gesamtausgaben | 7.134 | 7.386 | 7.570 | 8.149 | 8.494 |
| davon: | | | | | |
| Investitionen | 1.032 | 1.064 | 1.062 | 937 | 978 |
| Laufende Ausgaben | 6.102 | 6.322 | 6.509 | 7.107 | 7.516 |
| (3) LuF-Ausgaben nominal (in jeweiligen Preisen) | | | | | |
| Ausgaben für LuF | 1.896 | 2.054 | 2.235 | 2.340 | 2.484 |
| davon: | | | | | |
| Grundausstattung[1] | 1.611 | 1.734 | 1.875 | 1.929 | 2.022 |
| Drittmittel[2] | 285 | 320 | 360 | 411 | 462 |
| (4) LuF-Ausgaben real (in Preisen von 1980) | | | | | |
| Ausgaben für LuF | 2.107 | 2.054 | 2.060 | 2.063 | 2.143 |
| davon: | | | | | |
| Grundausstattung[1] | 790 | 1.734 | 1.728 | 1.701 | 1.745 |
| Drittmittel[2] | 317 | 320 | 332 | 362 | 399 |

1) Den Berechnungen liegen folgende Annahmen zugrunde:
a) zwei Drittel der nicht aus Einnahmen der Krankenversorgung gedeckten laufenden Ausgaben sind LuF-Ausgaben,
b) von den Investitionen werden 20 % Forschung und Lehre direkt zugerechnet.- 2) Geschätzt. In der Hochschulfinanzstatistik sind weniger Drittmittel erfaßt.

Quelle: Eigene Berechnungen nach Hochschulfinanzstatistik.

# School leavers qualifying for higher education 1970, 1975 and 1980 to 1986

| Jahr | Durchschnitt der 18- bis unter 22jährigen am 1.1. | | Schulabsolventen mit einer Studienberechtigung | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | insgesamt | | | davon mit | | | |
| | | | | | | Hochschulreife | | Fachhochschulreife | |
| | Deutsche und Ausländer | Deutsche | Anzahl | % von Sp.1 | % von Sp.2 | Anzahl | % von Sp.3 | Anzahl | % von Sp.3 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 1970 | 821.600 | . | 89.165[2] | 10,9 | . | 89.165 | x | . | x |
| 1975 | 850.300 | 783.400 | 172.174 | 20,2 | 22,0 | 125.524 | 72,9 | 46.650 | 27,1 |
| 1980 | 975.400 | 910.800 | 218.532 | 22,4 | 24,0 | 167.960 | 76,9 | 50.572 | 23,1 |
| 1981 | 1.010.900 | 936.300 | 257.952 | 25,5 | 27,6 | 196.433 | 76,2 | 61.519 | 23,8 |
| 1982 | 1.040.200 | 960.300 | 285.153 | 27,4 | 29,7 | 214.418 | 75,2 | 70.735 | 24,8 |
| 1983 | 1.060.100 | 980.200 | 305.597 | 28,8 | 31,2 | 227.435 | 74,4 | 78.162 | 25,6 |
| 1984 | 1.067.000 | 985.500 | 304.322 | 28,5 | 30,9 | 230.411 | 75,7 | 73.911 | 24,3 |
| 1985 | 1.072.200 | 989.600 | 298.080 | 27,8 | 30,1 | 230.271 | 77,3 | 67.809 | 22,7 |
| | | | Prognose | | | | | | |
| 1986 | 1.060.600 | 977.200 | 289.570[4] | 27,3 | 29,6 | 224.190[4] | 77,4 | 65.380[4] | 22,6 |
| 1987 | 1.031.700[3] | 952.400[3] | 285.490[4] | 27,7 | 30,0 | 222.470[4] | 77,9 | 63.020[4] | 22,1 |

x = Nachweis ist nicht sinnvoll bzw. Fragestellung trifft nicht zu.

1) Die relativ niedrigen Zahlen der Schulabsolventen mit Hochschulreife 1980 sind auf das Kurzschuljahr 1966/67 zurückzuführen.- 2) Im Jahre 1970 sind nur die Studienberechtigten mit allgemeiner und fachgebundener Hochschulreife erfaßt.- 3) Durchschnitt der 17- bis unter 21jährigen am 1.1.1986.- 4) Kurzprognose der Länder 1986.

Quelle: Statistisches Bundesamt; Allgemeines Schulwesen (ab 1980 Fachserie 11, Reihe 1) und ältere Veröffentlichungen; Berufliches Schulwesen (ab 1980 Fachserie 11, Reihe 2) und ältere Veröffentlichungen.

II.8.2.1

New entrants in their lst semester by type of higher education institution
1970, 1975 und 1980 bis 1986

| Jahr | Erstimmatrikulierte Studienanfänger[1] | | | | | |
|---|---|---|---|---|---|---|
| | | davon | | | | |
| | insgesamt | Universitäten, Pädagogische Hochschulen[2] | Gesamthochschulen | Kunsthochschulen | Fachhochschulen (ohne Verwaltungsfachhochschulen) | Außerdem: Verwaltungsfachhochschul |
| | Anzahl | | | | | |
| (1) Deutsche und ausländische erstimmatrikulierte Studienanfän | | | | | | |
| 1970 | 121.456 | 89.072 | - | 3.151 | 29.233[3] | - |
| 1975 | 162.206 | 108.209 | 9.854 | 2.618 | 41.525 | 1.241[4] |
| 1980 | 181.843 | 122.325 | 12.833 | 3.094 | 43.591 | 8.120 |
| 1981 | 204.347 | 137.167 | 14.321 | 2.976 | 49.883 | 10.057 |
| 1982 | 215.293 | 141.726 | 15.206 | 2.953 | 55.408 | 10.301 |
| 1983 | 222.513 | 144.122 | 16.053 | 2.915 | 59.423 | 9.604 |
| 1984 | 211.164 | 136.728 | 15.050 | 2.874 | 56.512 | 8.979 |
| 1985[5] | 197.195 | 128.906 | 12.784 | 2.806 | 52.699 | 9.628 |
| 1986[6] | 200.727 | 129.117 | 13.662 | 2.770 | 55.178 | 10.311 |
| (2) Deutsche erstimmatrikulierte Studienanfänger | | | | | | |
| 1970 | 115.735 | 84.937 | - | 2.679 | 28.119[3] | - |
| 1975 | 151.022 | 99.847 | 9.562 | 1.993 | 39.620 | 1.241[4] |
| 1980 | 168.633 | 112.380 | 12.245 | 2.458 | 41.550 | 8.120 |
| 1981 | 189.258 | 125.990 | 13.574 | 2.383 | 47.311 | 10.057 |
| 1982 | 199.798 | 130.273 | 14.330 | 2.371 | 52.824 | 10.299 |
| 1983 | 207.383 | 133.074 | 15.160 | 2.375 | 56.774 | 9.604 |
| 1984 | 196.150 | 125.514 | 14.183 | 2.353 | 54.100 | 8.977 |
| 1985[5] | 181.847 | 117.161 | 11.942 | 2.250 | 50.494 | 9.626 |
| 1986[6] | 186.615 | 118.381 | 12.924 | 2.372 | 52.938 | 10.310 |

II.8.2.2

New entrants .... continued

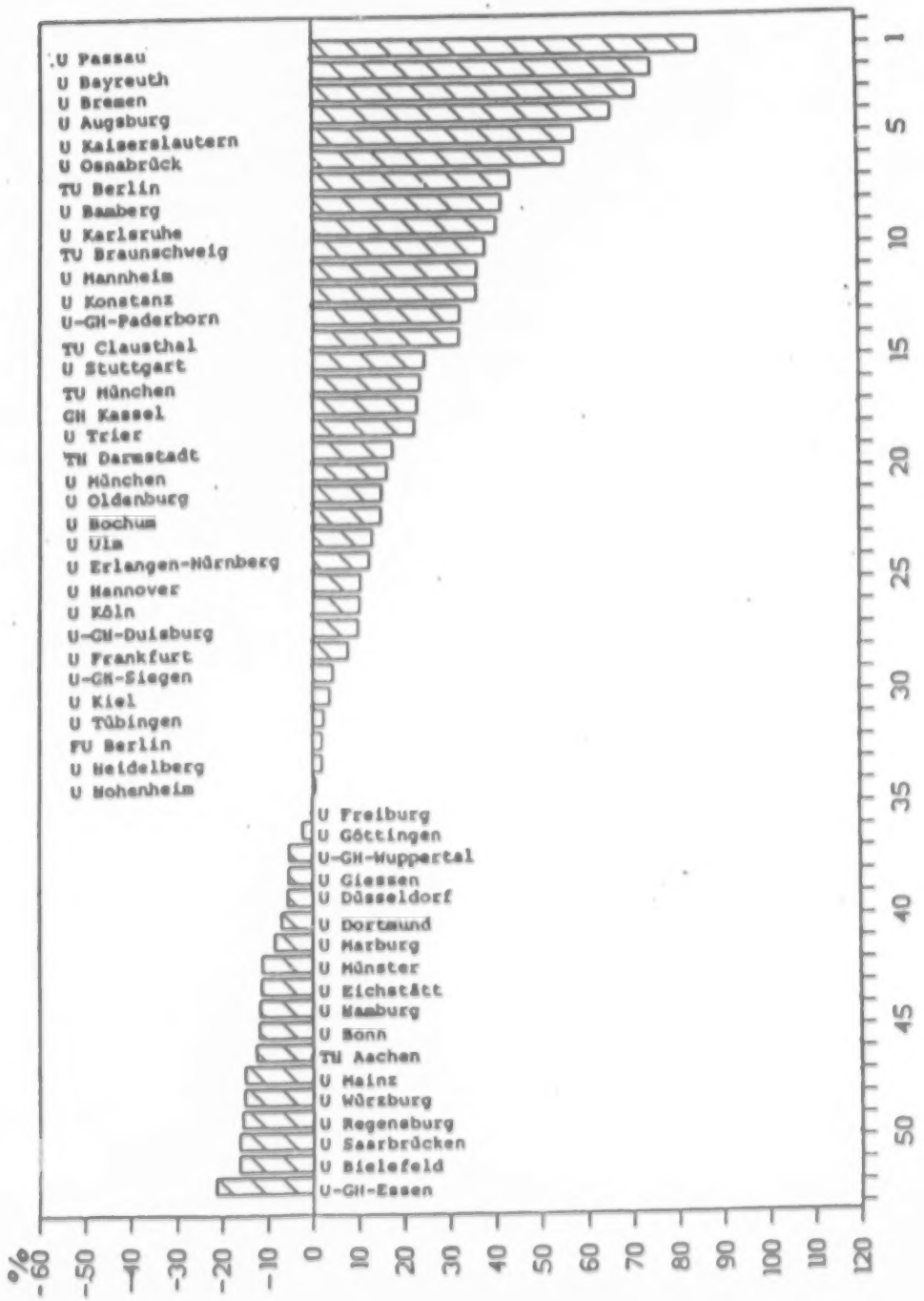
| Jahr | Erstimmatrikulierte Studienanfänger[1] insgesamt | davon: Universitäten, Pädagogische Hochschulen[2] | Gesamthochschulen | Kunsthochschulen | Fachhochschulen (ohne Verwaltungsfachhochschulen) | Außerdem: Verwaltungsfachhochschulen |
|---|---|---|---|---|---|---|
| | Anzahl | | | | | |
| | (3) Ausländische erstimmatrikulierte Studienanfänger | | | | | |
| 1970 | 5.721 | 4.135 | - | 472 | 1.114[3] | - |
| 1975 | 11.184 | 8.362 | 292 | 625 | 1.905 | - |
| 1980 | 13.210 | 9.945 | 588 | 636 | 2.041 | - |
| 1981 | 15.089 | 11.177 | 747 | 593 | 2.572 | - |
| 1982 | 15.495 | 11.453 | 876 | 582 | 2.584 | 2 |
| 1983 | 15.130 | 11.048 | 893 | 540 | 2.649 | - |
| 1984 | 15.014 | 11.214 | 867 | 521 | 2.412 | 2 |
| 1985[5] | 15.348 | 11.745 | 842 | 556 | 2.205 | 2 |
| 1986[6] | 14.112 | 10.736 | 738 | 398 | 2.240 | 1 |

1) Studenten im 1. Hochschulsemester des Sommer- und Wintersemesters.- 2) Einschl. Theologische Hochschulen.- 3) Geschätzt anhand der Schülerzahlen der Höheren Wirtschaftsfachschulen und der Fachschulen für Sozialarbeit und Sozialpädagogik (25% der Schüler) unter Annahme einer Studiendauer von drei Jahren zuzüglich der Studenten im 1. und 2. Fachsemester an den Ingenieurschulen.- 4) Im Sommersemester ohne Fachhochschulen für Verwaltung Kehl und Stuttgart.- 5) Die Universität der Bundeswehr ist in der Bundesstatistik bis einschl. 1984 bei den Gesamthochschulen, ab 1985 bei den Universitäten ausgewiesen (1985: 816 deutsche und ausländische, 807 deutsche Studienanfänger).- 6) Erste vorläufige Ergebnisse.

Quellen: Statistisches Bundesamt; 1970 Kleine Hochschulstatistik, 1975 und 1980 bis 1985 Studentenindividualerhebung, 1986 Vorbericht und Eckzahlen der Schnellmeldungen.

II.8.2.3

Ranking of universities by the change in new entrants 1986 compared to 1980



II.8.3.1

German and foreign students by type of higher education institution winter semester 1970/71, 1975/76 and 1980/81 until 1986/87

| Wintersemester | Studenten (ohne Beurlaubte und Gasthörer) insgesamt | davon: Universitäten, Pädagogische Hochschulen[1] | Gesamthochschulen | Kunsthochschulen | Fachhochschulen (ohne Verwaltungsfachhochschulen) | Außerdem: Verwaltungsfachhochschulen |
|---|---|---|---|---|---|---|
| | Anzahl | | | | | |
| (1) Deutsche und ausländische Studenten | | | | | | |
| 1970/71 | 525.211 | 411.951 | - | 10.456 | 102.804[2] | - |
| 1975/76 | 833.125 | 632.857 | 42.400 | 15.343 | 142.525 | 2.877 |
| 1980/81 | 1.010.804 | 749.040 | 69.418 | 18.044 | 174.302 | 20.786 |
| 1981/82 | 1.090.486 | 804.189 | 75.363 | 18.867 | 192.067 | 30.572 |
| 1982/83 | 1.162.768 | 850.087 | 78.342 | 19.405 | 214.934 | 34.833 |
| 1983/84 | 1.232.013 | 888.654 | 82.798 | 20.141 | 240.420 | 34.475 |
| 1984/85 | 1.278.002 | 912.940 | 86.077 | 20.860 | 258.125 | 33.473 |
| 1985/86[3] | 1.303.751 | 929.161 | 85.044 | 21.464 | 268.082 | 32.644 |
| 1986/87[4] | 1.336.271 | 946.665 | 88.151 | 21.890 | 279.565 | 33.750 |
| (2) Deutsche Studenten | | | | | | |
| 1970/71 | 496.207 | 388.469 | - | 9.033 | 98.705[2] | - |
| 1975/76 | 785.827 | 596.324 | 41.189 | 13.094 | 135.220 | 2.877 |
| 1980/81 | 953.091 | 705.857 | 66.673 | 15.719 | 164.842 | 20.786 |
| 1981/82 | 1.028.023 | 757.704 | 72.262 | 16.580 | 181.477 | 30.571 |
| 1982/83 | 1.096.338 | 800.981 | 74.843 | 17.077 | 203.437 | 34.828 |
| 1983/84 | 1.162.396 | 837.847 | 78.939 | 17.849 | 227.761 | 34.473 |
| 1984/85 | 1.205.763 | 860.557 | 81.903 | 18.534 | 244.769 | 33.470 |
| 1985/86[3] | 1.229.179 | 875.065 | 80.715 | 19.121 | 254.278 | 32.642 |
| 1986/87[4] | 1.259.007 | 890.440 | 83.581 | 19.544 | 265.442 | 33.749 |

II.8.3.2

German and foreign students .... continued

| Wintersemester | Studenten (ohne Beurlaubte und Gasthörer) insgesamt | davon: Universitäten, Pädagogische Hochschulen[1] | Gesamthochschulen | Kunsthochschulen | Fachhochschulen (ohne Verwaltungsfachhochschulen) | Außerdem: Verwaltungsfachhochschulen |
|---|---|---|---|---|---|---|
| | Anzahl | | | | | |
| | (3) Ausländische Studenten | | | | | |
| 1970/71 | 29.004 | 23.482 | - | 1.423 | 4.099[2] | - |
| 1975/76 | 47.298 | 36.533 | 1.211 | 2.249 | 7.305 | - |
| 1980/81 | 57.713 | 43.183 | 2.745 | 2.325 | 9.460 | - |
| 1981/82 | 62.463 | 46.485 | 3.101 | 2.287 | 10.590 | - |
| 1982/83 | 66.430 | 49.106 | 3.499 | 2.328 | 11.497 | 5 |
| 1983/84 | 69.617 | 50.807 | 3.859 | 2.292 | 12.659 | 2 |
| 1984/85 | 72.239 | 52.383 | 4.174 | 2.326 | 13.356 | 3 |
| 1985/86[3] | 74.572 | 54.096 | 4.329 | 2.343 | 13.804 | 2 |
| 1986/87[4] | 77.264 | 56.225 | 4.570 | 2.346 | 14.123 | 1 |

1) Einschl. Theologische Hochschulen.- 2) Schüler der Höheren Wirtschaftsfach- und der Ingenieurschulen und 25 % der Schüler der Fachschulen für Sozialarbeit und Sozialpädagogik.- 3) Die Universität der Bundeswehr München ist in der Bundesstatistik bis einschl. 1984 bei den Gesamthochschulen, ab 1985 bei den Universitäten ausgewiesen (WS 1985/86: 3.010 deutsche und ausländische Studenten, 2.976 deutsche Studenten).- 4) Erste vorläufige Ergebnisse.

Quellen: Statistisches Bundesamt; Wintersemester 1970/71 Kleine Hochschulstatistik, 1975/76 und 1980/81 bis 1985/86 Studentenindividualerhebung (Fachserie 11, Reihe 4.1), 1986/87 Eckzahlen der Schnellmeldungen.

# II.8.4

German students in the 1st and 2nd subject-related semester by groups of subjects and final examination
winter semester 1972/73, 1975/76, 1980/81 and 1982/83 until 1985/86

| Fächergruppe | Deutsche Studenten im 1. und 2. Fachsemester | | | | | | |
|---|---|---|---|---|---|---|---|
| | Wintersemester | | | | | | |
| | 1972/73 | 1975/76 | 1980/81 | 1982/83 | 1983/84 | 1984/85 | 1985/86 |
| | Anzahl | | | | | | |
| **(1) Studenten insgesamt** | | | | | | | |
| Alle Fächergruppen[1] | 170.660 | 195.363 | 222.333 | 250.515 | 262.762 | 257.181 | 247.217 |
| **(2) Studenten mit angestrebter Diplom-, Staats- und Magisterprüfung[2] (ohne Studenten der Fachhochschulen)** | | | | | | | |
| Sprach- und Kulturwissenschaften | 14.238 | 18.122 | 27.221 | 35.916 | 38.951 | 41.133 | 41.380 |
| Rechts-, Wirtschafts- und Sozialwissenschaften | 24.893 | 27.605 | 38.411 | 47.393 | 49.458 | 47.758 | 45.996 |
| Mathematik, Naturwissenschaften | 14.782 | 18.585 | 22.590 | 30.913 | 34.888 | 34.922 | 33.513 |
| Humanmedizin (ohne Zahnmedizin) | 5.278 | 6.911 | 10.610 | 10.624 | 11.039 | 11.313 | 11.307 |
| Zahnmedizin | 936 | 1.166 | 1.584 | 1.759 | 1.848 | 1.909 | 1.896 |
| Veterinärmedizin | 602 | 691 | 985 | 923 | 827 | 860 | 870 |
| Agrar-, Forst- und Ernährungswissenschaften | 2.350 | 3.596 | 3.924 | 3.911 | 4.047 | 4.200 | 4.370 |
| Ingenieurwissenschaften | 12.645 | 13.830 | 16.229 | 23.101 | 24.860 | 22.305 | 20.847 |
| Kunst, Kunstwissenschaft | 3.350 | 5.027 | 5.717 | 6.615 | 7.106 | 7.274 | 7.522 |
| Zusammen[3] | 79.271 | 95.566 | 127.273 | 161.159 | 173.052 | 171.720 | 167.909 |
| **(3) Studenten mit angestrebter Lehramtsprüfung[4]** | | | | | | | |
| Sprach- und Kulturwissenschaften | 33.442 | 32.159 | 23.511 | 17.686 | 15.002 | 13.453 | 10.941 |
| Rechts-, Wirtschafts- und Sozialwissenschaften | 2.824 | 2.785 | 2.434 | 1.642 | 1.438 | 1.218 | 1. 106 |
| Mathematik, Naturwissenschaften | 15.020 | 12.755 | 7.774 | 5.244 | 4.132 | 3.819 | 3. 288 |
| Agrar-, Forst- und Ernährungswissenschaften | 612 | 952 | 611 | 657 | 577 | 544 | 469 |
| Ingenieurwissenschaften | 1.349 | 1.383 | 808 | 628 | 556 | 550 | 453 |
| Kunst, Kunstwissenschaft | 4.100 | 4.628 | 3.145 | 3.191 | 2.613 | 2.347 | 2.079 |
| Zusammen[3] | 57.413 | 54.674 | 38.316 | 29.051 | 24.318 | 21.931 | 18.339 |
| **(4) Studenten der Fachhochschulen[1]** | | | | | | | |
| Sprach- und Kulturwissenschaften | 909 | 1.318 | 910 | 1.028 | 1.024 | 1.125 | 1.145 |
| Rechts-, Wirtschafts- und Sozialwissenschaften | 10.546 | 13.254 | 25.451 | 19.369 | 19.972 | 19.327 | 18.995 |
| Mathematik, Informatik, Chemie, Physik | 498 | 844 | 1.953 | 2.769 | 3.600 | 3.659 | 3.618 |
| Agrar-, Forst- und Ernährungswissenschaften | 949 | 1.759 | 1.999 | 2.232 | 2.405 | 2.330 | 2.463 |
| Ingenieurwissenschaften | 19.402 | 25.952 | 24.064 | 32.628 | 35.918 | 34.716 | 32.409 |
| Kunst, Gestaltung, Musik | 1.671 | 1.996 | 2.367 | 2.279 | 2.473 | 2.373 | 2.339 |
| Zusammen[3] | 33.976 | 45.123 | 56.744[5] | 60.305 | 65.392 | 63.530 | 60.969 |
| **Außerdem: Verwaltungsfachhochschulen** | | | | | | | |
| Zusammen | . | . | . | 11.423 | 10.745 | 10.269 | 11.034 |

1) Bis einschl. WS 1980/81 einschl. Verwaltungsfachhochschulen; die Verwaltungsfachhochschulen werden der amtlichen Statistik erst ab WS 1981/82 getrennt ausgewiesen.- 2) Ohne Staatsprüfung für das Lehramt einschl. Lizentiatenprüfung, Promotion, kirchlicher Prüfung, künstlerischem Abschluß und Graduierung.- 3) Einschl. einer geringen Zahl von Studenten außerhalb der Studienbereichsgliederung.- 4) Einschl. Ergänzungs- und Zusatzprüfung.- 5) Darunter 10.912 Studenten an Verwaltungsfachhochschulen, geschätzt auf grund der Studentenzahl des Wintersemesters 1981/82 (2. Studienjahr), darunter 10.681 Studenten der Rechts-, Wirtschafts- und Sozialwissenschaften.

Quelle: Statistisches Bundesamt, Studentenindividualerhebung (unveröffentlichte Tabellen 37.B.1 und 37.C.1).

II.8.5.1

# Average age and average study period of German students by groups of subjects in examination years 1978, 1981 and 1984

| Fachergruppe | 1978 | | | | 1981 | | | | 1984 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Durchschnittsalter bei bestandener Prüfung | Studiendauer in Jahren | | | Durchschnittsalter bei bestandener Prüfung | Studiendauer in Jahren | | | Durchschnittsalter bei bestandener Prüfung | Studiendauer in Jahren | | |
| | | von der Erstimmatrikulation bis zum Abschluß des Prüfungsverfahrens | nach Hochschulsemestern | nach Fachsemestern | | von der Erstimmatrikulation bis zum Abschluß des Prüfungsverfahrens | nach Hochschulsemestern | nach Fachsemestern | | von der Erstimmatrikulation bis zum Abschluß des Prüfungsverfahrens | nach Hochschulsemestern | nach Fachsemestern |
| | | | ohne Urlaubs- und Auslandssemester | | | | ohne Urlaubs- und Auslandssemester | | | | ohne Urlaubs- und Auslandssemester | |
| (1) Diplom- oder entsprechende Prüfungen | | | | | | | | | | | | |
| Sprach- und Kulturwissenschaften | 28,2 | 6,9 | 6,4 | 5,4 | 28,6 | 7,4 | 6,8 | 5,8 | 28,7 | 7,4 | 7,0 | 6,0 |
| Sport | 26,4 | 5,7 | 5,5 | 5,0 | 27,3 | 6,4 | 6,3 | 5,8 | 27,6 | 6,8 | 6,7 | 6,0 |
| Rechts-, Wirtschafts- und Sozialwissenschaften | 27,4 | 6,1 | 6,0 | 5,2 | 27,4 | 6,3 | 6,1 | 5,4 | 27,6 | 6,5 | 6,3 | 5,7 |
| Mathematik, Naturwissenschaften | 27,1 | 6,8 | 6,7 | 6,2 | 27,2 | 6,9 | 6,6 | 6,2 | 27,4 | 7,1 | 6,9 | 6,5 |
| Agrar-, Forst- und Ernährungswissenschaften | 26,1 | 5,3 | 5,3 | 4,9 | 26,2 | 5,5 | 5,6 | 5,2 | 26,7 | 5,9 | 5,8 | 5,3 |
| Ingenieurwissenschaften | 27,6 | 6,6 | 6,4 | 5,6 | 27,4 | 6,7 | 6,4 | 5,8 | 27,5 | 6,8 | 6,7 | 6,3 |
| Kunst, Kunstwissenschaft | 26,0 | 4,5 | 4,4 | 3,9 | 27,5 | 6,9 | 6,3 | 5,4 | 27,9 | 7,0 | 6,7 | 5,8 |
| Prüfungsgruppe zusammen | 27,4 | 6,4 | 6,2 | 5,5 | 27,5 | 6,7 | 6,4 | 5,7 | 27,7 | 6,9 | 6,7 | 6,0 |
| (2) Staatsprüfungen ohne Lehramt | | | | | | | | | | | | |
| Rechts-, Wirtschafts- und Sozialwissenschaften | 26,7 | 6,2 | 6,0 | 5,6 | 26,7 | 6,4 | 6,0 | 5,6 | 27,0 | 6,6 | 6,5 | 6,0 |
| Mathematik, Naturwissenschaften | 27,5 | 5,4 | 5,2 | 4,1 | 26,7 | 5,8 | 5,6 | 4,6 | 26,6 | 5,9 | 5,7 | 4,9 |
| Humanmedizin (ohne Zahnmedizin) | 27,8 | 7,3 | 7,1 | 6,5 | 28,8 | 7,8 | 7,7 | 6,6 | 28,7 | 7,9 | 7,6 | 6,6 |
| Zahnmedizin | 28,0 | 6,8 | 6,6 | 5,6 | 28,8 | 7,2 | 6,9 | 5,5 | 28,5 | 6,9 | 6,7 | 5,5 |
| Veterinärmedizin | 26,7 | 6,1 | 6,1 | 5,6 | 27,4 | 6,5 | 6,3 | 5,4 | 27,3 | 6,4 | 6,1 | 5,5 |
| Prüfungsgruppe zusammen[1] | 27,2 | 6,4 | 6,4 | 5,8 | 27,7 | 6,9 | 6,7 | 5,9 | 27,9 | 7,1 | 7,0 | 6,1 |
| (3) Promotionen | | | | | | | | | | | | |
| Sprach- und Kulturwissenschaften | 33,3 | 12,1 | 8,7 | 7,0 | 33,4 | 12,4 | 9,2 | 7,3 | 33,9 | 12,7 | 9,8 | 8,0 |
| Sport | 30,1 | 9,8 | 8,7 | 8,5 | 38,7 | 10,8 | 7,3 | 5,8 | 33,8 | 10,8 | 10,1 | 5,8 |
| Rechts-, Wirtschafts- und Sozialwissenschaften | 31,9 | 11,3 | 7,3 | 5,8 | 32,3 | 11,7 | 7,6 | 5,9 | 32,5 | 11,9 | 8,1 | 6,1 |
| Mathematik, Naturwissenschaften | 30,7 | 10,3 | 8,1 | 7,5 | 31,1 | 10,8 | 8,8 | 7,8 | 31,1 | 10,8 | 9,0 | 7,8 |
| Humanmedizin (ohne Zahnmedizin) | 30,1 | 9,6 | 7,0 | 6,4 | 30,4 | 9,7 | 7,4 | 6,5 | 30,4 | 9,7 | 7,7 | 6,7 |
| Zahnmedizin | 29,3 | 8,3 | 6,4 | 5,6 | 30,2 | 8,8 | 6,9 | 5,7 | 30,3 | 8,9 | 7,0 | 5,8 |
| Veterinärmedizin | 29,5 | 8,9 | 6,8 | 6,3 | 29,3 | 8,7 | 7,0 | 6,2 | 29,8 | 8,8 | 7,4 | 6,3 |
| Agrar-, Forst- und Ernährungswissenschaften | 31,0 | 9,4 | 6,7 | 5,2 | 31,4 | 10,3 | 6,8 | 5,6 | 30,4 | 9,9 | 7,4 | 6,3 |
| Ingenieurwissenschaften | 34,1 | 13,0 | 7,1 | 6,0 | 34,5 | 13,4 | 7,3 | 6,0 | 34,1 | 13,4 | 7,5 | 6,1 |
| Kunst, Kunstwissenschaft | 31,7 | 11,1 | 9,6 | 7,8 | 33,1 | 11,4 | 9,6 | 8,2 | 33,5 | 11,4 | 10,0 | 8,7 |
| Prüfungsgruppe zusammen | 31,1 | 10,4 | 7,5 | 6,6 | 31,4 | 10,6 | 7,9 | 6,7 | 31,4 | 10,6 | 8,1 | 6,9 |
| (4) Lehramtsprüfungen | | | | | | | | | | | | |
| Grund- und Hauptschulen Primarstufe | 25,2 | 3,8 | 3,9 | 3,5 | 25,5 | 4,6 | 4,5 | 3,9 | 25,6 | 4,8 | 4,7 | 4,1 |
| Realschulen Sekundarstufe I | 26,0 | 4,9 | 4,5 | 3,9 | 26,4 | 5,6 | 4,9 | 4,3 | 26,8 | 6,2 | 6,0 | 5,4 |
| Gymnasien Sekundarstufe II | 26,7 | 6,4 | 6,1 | 5,5 | 27,0 | 6,7 | 6,4 | 5,8 | 27,3 | 7,0 | 6,6 | 6,2 |

# II.8.5.2

## Average age and ..... continued

| Fachergruppe | 1978 | | | | 1981 | | | | 1984 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Durchschnittsalter bei bestandener Prüfung | Studiendauer in Jahren: von der Exmatrikulation bis zum Abschluß des Prüfungsverfahrens | nach Hochschulsemestern (ohne Urlaubs- und Auslandssemester) | nach Fachsemestern (ohne Urlaubs- und Auslandssemester) | Durchschnittsalter bei bestandener Prüfung | Studiendauer in Jahren: von der Exmatrikulation bis zum Abschluß des Prüfungsverfahrens | nach Hochschulsemestern (ohne Urlaubs- und Auslandssemester) | nach Fachsemestern (ohne Urlaubs- und Auslandssemester) | Durchschnittsalter bei bestandener Prüfung | Studiendauer in Jahren: von der Exmatrikulation bis zum Abschluß des Prüfungsverfahrens | nach Hochschulsemestern (ohne Urlaubs- und Auslandssemester) | nach Fachsemestern (ohne Urlaubs- und Auslandssemester) |
| **(5) Graduierungen/Kurzstudiengänge** | | | | | | | | | | | | |
| Sprach- und Kulturwissenschaften | 25,1 | 4,3 | 4,0 | 3,4 | 25,0 | 4,3 | 4,0 | 3,5 | 25,1 | 4,2 | 4,1 | 3,5 |
| Sport, Leibeserziehung | 23,0 | 3,1 | 3,1 | 3,1 | - | - | - | - | - | - | - | - |
| Rechts-, Wirtschafts- und Sozialwissenschaften | 25,8 | 3,8 | 3,7 | 3,4 | 25,8 | 3,9 | 3,8 | 3,5 | 26,4 | 3,8 | 3,7 | 3,4 |
| Mathematik, Naturwissenschaften | 25,3 | 4,4 | 4,4 | 4,0 | 25,7 | 4,6 | 4,5 | 4,2 | 26,2 | 4,8 | 4,7 | 4,2 |
| Agrar-, Forst- und Ernährungswissenschaften | 24,8 | 3,8 | 3,7 | 3,5 | 25,1 | 4,0 | 4,0 | 3,7 | 25,9 | 4,2 | 4,1 | 3,8 |
| Ingenieurwissenschaften | 25,4 | 4,1 | 4,0 | 3,7 | 25,8 | 4,4 | 4,4 | 4,1 | 26,4 | 4,6 | 4,5 | 4,2 |
| Kunst, Kunstwissenschaft | 25,4 | 4,5 | 4,4 | 4,2 | 26,0 | 4,8 | 4,8 | 4,5 | 26,7 | 5,1 | 5,0 | 4,7 |
| Prüfungsgruppe zusammen | 25,5 | 4,0 | 3,9 | 3,6 | 25,8 | 4,2 | 4,1 | 3,8 | 26,4 | 4,2 | 4,1 | 3,8 |

1) Einschließlich einiger weniger Prüfungen in hier nicht genannten Fächergruppen.

Quelle: Statistisches Bundesamt, Prüfungen an Hochschulen, Ergebnisse der Individualerhebung.

# II.8.6

German students total and German students with final examination passed, winter semester 1973/74, 1975/76 and 1980/81 until 1985/86

| Wintersemester | Deutsche Studenten | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | insgesamt | darunter mit bereits bestandener Abschlußprüfung | | | | | | | | | | |
| | | insgesamt | | davon | | | | | | | | |
| | | | | Zweitstudium | | Promotion mit vorangegangener Abschlußprüfung | | Aufbau- und Kontakt-studium | | ohne Angabe | |
| | Anzahl | Anzahl | %[1] | Anzahl | %[1] | Anzahl | %[1] | Anzahl | %[1] | Anzahl | %[1] |
| **(1) Hochschulen insgesamt** | | | | | | | | | | | |
| 1973/74 | 680.734 | 69.240 | 10,2 | 28.035 | 4,1 | 6.802 | 1,0 | 24.307 | 3,6 | 10.096 | 1,5 |
| 1975/76 | 788.704 | 87.470 | 11,1 | 36.284 | 4,6 | 10.619 | 1,3 | 31.243 | 4,0 | 9.324 | 1,2 |
| 1980/81 | 973.877 | 102.540 | 10,5 | 45.060 | 4,6 | 16.908 | 1,7 | 26.883 | 2,8 | 13.689 | 1,4 |
| 1981/82 | 1.058.594 | 109.963 | 10,4 | 48.140 | 4,5 | 18.944 | 1,8 | 28.285 | 2,7 | 14.594 | 1,4 |
| 1982/83 | 1.131.166 | 113.012 | 10,0 | 49.440 | 4,4 | 19.464 | 1,7 | 27.702 | 2,4 | 16.406 | 1,5 |
| 1983/84 | 1.196.869 | 118.698 | 9,9 | 53.931 | 4,5 | 20.671 | 1,7 | 26.571 | 2,2 | 17.525 | 1,5 |
| 1984/85 | 1.239.233 | 119.036 | 9,6 | 54.889 | 4,4 | 21.243 | 1,7 | 23.295 | 1,9 | 19.609 | 1,6 |
| 1985/86 | 1.261.821 | 125.575 | 10,0 | 57.762 | 4,6 | 22.812 | 1,8 | 24.578 | 1,9 | 20.423 | 1,6 |
| **(2) Wissenschaftliche und Kunsthochschulen** | | | | | | | | | | | |
| 1973/74 | 567.340 | 67.902 | 12,0 | 27.322 | 4,8 | 6.802 | 1,2 | 23.740 | 4,2 | 10.038 | 1,8 |
| 1975/76 | 650.607 | 86.241 | 13,3 | 35.650 | 5,5 | 10.619 | 1,6 | 30.684 | 4,7 | 9.288 | 1,4 |
| 1980/81 | 788.249 | 100.169 | 12,7 | 44.050 | 5,6 | 16.908 | 2,1 | 25.752 | 3,3 | 13.459 | 1,7 |
| 1981/82 | 846.546 | 106.763 | 12,6 | 46.702 | 5,5 | 18.943 | 2,2 | 26.751 | 3,2 | 14.367 | 1,7 |
| 1982/83 | 892.901 | 109.215 | 12,2 | 47.509 | 5,3 | 19.460 | 2,2 | 26.085 | 2,9 | 16.161 | 1,8 |
| 1983/84 | 934.635 | 113.886 | 12,2 | 51.552 | 5,5 | 20.666 | 2,2 | 24.439 | 2,6 | 17.229 | 1,8 |
| 1984/85 | 960.994 | 114.031 | 11,9 | 52.413 | 5,5 | 21.241 | 2,2 | 21.160 | 2,2 | 19.217 | 2,0 |
| 1985/86 | 974.901 | 120.735 | 12,4 | 55.230 | 5,7 | 22.810 | 2,3 | 22.507 | 2,3 | 20.188 | 2,1 |
| **(3) Fachhochschulen (einschl. Verwaltungsfachhochschulen)** | | | | | | | | | | | |
| 1973/74 | 113.394 | 1.338 | 1,2 | 713 | 0,6 | - | - | 567 | 0,5 | 58 | 0,1 |
| 1975/76 | 138.097 | 1.229 | 0,9 | 634 | 0,5 | - | - | 559 | 0,4 | 36 | 0,0 |
| 1980/81 | 185.628 | 2.371 | 1,3 | 1.010 | 0,5 | - | - | 1.131 | 0,6 | 230 | 0,1 |
| 1981/82 | 212.048 | 3.200 | 1,5 | 1.438 | 0,7 | 1 | 0,0 | 1.534 | 0,7 | 227 | 0,1 |
| 1982/83 | 238.265 | 3.797 | 1,6 | 1.931 | 0,8 | 4 | 0,0 | 1.617 | 0,7 | 245 | 0,1 |
| 1983/84 | 262.234 | 4.812 | 1,8 | 2.379 | 0,9 | 5 | 0,0 | 2.132 | 0,8 | 296 | 0,1 |
| 1984/85 | 278.239 | 5.005 | 1,8 | 2.476 | 0,9 | 2 | 0,0 | 2.135 | 0,8 | 392 | 0,1 |
| 1985/86 | 286.920 | 4.840 | 1,7 | 2.532 | 0,9 | 2 | 0,0 | 2.071 | 0,7 | 235 | 0,1 |

1) der deutschen Studenten insgesamt.

Quelle: Statistisches Bundesamt: Studentenindividualerhebung (unveröffentlichte Tabelle II.16).

Habilitations by groups of subjects,
1976 and 1980 to 1985

| Fächergruppe | Habilitationen | | | | | | | Professoren an Hochschulen (ohne Fachhochschulen) | Habilitationen je 100 Professoren |
|---|---|---|---|---|---|---|---|---|---|
| | 1976 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1984 | |
| Sprach- und Kulturwissenschaften[1] | 173 | 188 | 188 | 184 | 205 | 205 | 200 | 5.866 | 3,5 |
| Rechts-, Wirtschafts- und Sozialwissenschaften | 110 | 95 | 122 | 110 | 110 | 89 | 91 | 2.744 | 3,2 |
| Mathematik, Naturwissenschaften | 298 | 300 | 267 | 272 | 229 | 268 | 271 | 5.171 | 5,2 |
| Humanmedizin | 324 | 350 | 346 | 379 | 328 | 313 | 345 | 3.106 | 10,1 |
| Agrar-, Forst- und Ernährungswissenschaften, Veterinärmedizin | 31 | 34 | 26 | 19 | 28 | 28 | 25 | 689 | 4,1 |
| Ingenieurwissenschaften | 45 | 41 | 44 | 40 | 47 | 32 | 35 | 2.261 | 1,4 |
| Kunst, Kunstwissenschaft | 8 | 11 | 11 | 10 | 6 | 12 | 10 | 1.531 | 0,8 |
| nachrichtlich: Zentrale Einrichtungen | - | - | - | - | - | - | - | 248 | - |
| I n s g e s a m t | 989 | 1.019 | 1.004 | 1.014 | 953 | 947 | 977 | 21.616 | 4,4 |

1) Einschl. Sport, Leibeserziehung.

Quelle: Statistisches Bundesamt.

## Average age at habilitation by groups of subjects, 1970, 1975 and 1980 to 1985

| Fächergruppe | Alter bei Habilitation | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 1970[1] | 1975[1] | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 |
| Sprach- und Kulturwissenschaften | 37 | 37 | 38,1 | 39,3 | 38,8 | 39,7 | 39,6 | 40,6 |
| Sport | 36 | 36 | - | 35,8 | 38,5 | - | 49,0 | 41,1 |
| Rechts-, Wirtschafts- und Sozialwissenschaften | 36 | 36 | 36,8 | 37,8 | 38,3 | 38,1 | 38,8 | 38,9 |
| Mathematik, Naturwissenschaften | 36 | 36 | 36,9 | 37,1 | 37,2 | 37,2 | 37,7 | 38,1 |
| Humanmedizin (ohne Zahnmedizin) | 38 | 37 | 38,0 | 38,2 | 38,4 | 39,0 | 38,6[2] | 38,4 |
| Zahnmedizin | | | | | | | 38,2 | 39,0 |
| Veterinärmedizin | 36 | 38 | 38,6 | 40,1 | 40,3 | 37,3 | 41,6 | 39,6 |
| Agrar-, Forst- und Ernährungswissenschaften | 39 | 37 | 40,3 | 37,8 | 40,5 | 42,1 | 40,6 | 39,5 |
| Ingenieurwissenschaften | 37 | 38 | 40,0 | 40,1 | 40,6 | 41,9 | 41,3 | 41,8 |
| Kunst, Kunstwissenschaft | 39 | 41 | 35,4 | 39,6 | 42,0 | 40,3 | 41,9 | 40,3 |
| I n s g e s a m t | 37 | 37 | 37,7 | 38,1 | 38,3 | 38,8 | 38,8 | 39,0 |

1) Durchschnittliches Habilitationsalter des am 30.6.1977 an Hochschulen tätigen wissenschaftlichen und künstlerischen Personals.- 2) Gewichteter Durchschnitt.

Quelle: Statistisches Bundesamt.

II.8.7.2

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## III.2.1

### Development of the number of students receiving financial support

| | 1981 | 1982 | 1983 | 1984 | 1985 | 1986[5] |
|---|---|---|---|---|---|---|
| Studenten insgesamt[2] ..... Tsd. | 760 | 808 | 867 | 899 | 912 | 921 |
| Geförderte ..... Tsd. | 344 | 338 | 327 | 302 | 291 | 276 |
| Gefördertenquote ..... v.H. | 45,3 | 41,8 | 37,7 | 33,6 | 31,9 | 30,0 |
| davon an: | | | | | | |
| *Wissenschaftlichen Hochschulen* | | | | | | |
| Studenten[2][4] ..... Tsd. | 610 | 643 | 684 | 698 | 707 | 710 |
| Geförderte ..... Tsd. | 254 | 244 | 231 | 208 | 198 | 180 |
| Gefördertenquote ..... v.H. | 41,6 | 37,9 | 33,8 | 29,8 | 28,0 | 25,4 |
| *Fachhochschulen* | | | | | | |
| Studenten[2][3] ..... Tsd. | 150 | 165 | 183 | 201 | 205 | 211 |
| Geförderte ..... Tsd. | 91 | 94 | 96 | 94 | 93 | 96 |
| Gefördertenquote ..... v.H. | 60,7 | 57,0 | 52,5 | 46,8 | 45,4 | 45,5 |

[1]) Alle Zahlen geben den Jahresdurchschnitt an; Änderungen gegenüber dem Fünften Bericht beruhen darauf, daß abweichend von der früheren Berichterstattung, die im Sinne des BAföG dem Grunde nach förderungsberechtigte Zahl an Studenten zugrunde liegt.
[2]) Zahl der dem Grunde nach berechtigten Studenten abzüglich der Zahl der Inspektorenanwärter an Fachhochschulen.
[3]) Ohne Studenten, die an verwaltungsinternen Fachhochschulen eingeschrieben sind.
[4]) Einschließlich Pädagogische Hochschulen und Kunsthochschulen.
[5]) Hier und in den folgenden Übersichten Daten der Freien und Hansestadt Hamburg des Jahres 1985, da Angaben für 1986 noch nicht vorlagen.

Quelle: BMBW, eigene Schätzungen und Statistiken zum BAföG.

## III.2.2

### Distribution of financially supported students to the various types of higher education institutions (in %)

| Ausbildungsstättenart | Geförderte insgesamt | | Davon wohnten während der Ausbildung | | | |
|---|---|---|---|---|---|---|
| | | | bei den Eltern | | nicht bei den Eltern | |
| | 1984 | 1986 | 1984 | 1986 | 1984 | 1986 |
| (1) Wissenschaftl. Hochschulen, PH | 65,0 | 63,6 | 17,7 | 17,0 | 82,3 | 83,0 |
| (2) Akademien, Kunsthochschulen | 2,3 | 2,6 | 29,2 | 26,5 | 70,8 | 73,5 |
| (3) Fachhochschulen[1]) ..... | 32,7 | 33,8 | 28,6 | 27,6 | 71,4 | 72,4 |
| (4) Hochschulen insgesamt ..... | 100,0 | 100,0 | 21,4 | 20,8 | 78,6 | 79,2 |

[1]) einschließlich Höhere Fachschulen
Quelle: BMBW, BAföG-Statistik 1984, 1986

## III.2.3

### Students receiving financial support by sex and marital status (1986) (in %)

| Ausbildungsstättenart | männlich | weiblich | ledig | verheiratet | getrennt lebend, geschieden, verwitwet |
|---|---|---|---|---|---|
| (1) Wissenschaftliche Hochschulen, PH ..... | 59,1 | 40,9 | 92,4 | 6,2 | 1,5 |
| (2) Akademien, Kunsthochschulen ..... | 31,6 | 68,4 | 94,8 | 4,2 | 1,0 |
| (3) Fachhochschulen[1]) ..... | 72,2 | 27,8 | 91,5 | 7,3 | 1,2 |
| (4) Hochschulen insgesamt ..... | 62,9 | 37,1 | 92,1 | 6,5 | 1,4 |

[1]) einschließlich Höhere Fachschulen
Quelle: BMBW, BAföG-Statistik 1986

## III.2.4

Students receiving financial support by age (1986)

| Ausbildungsstättenart | Wissenschaftliche Hochschulen, PH | | Akademien, Kunsthochschulen | | Fachhochschulen [1] | |
|---|---|---|---|---|---|---|
| Alter von ... bis unter ... | v. H. | v. H. kum. | v. H. | v. H. kum. | v. H. | v. H. kum. |
| bis 18 ..... | 0,0 | 0,0 | 5,6 | 5,6 | 0,0 | 0,0 |
| 18 bis 20 ..... | 1,9 | 1,9 | 16,3 | 21,8 | 1,7 | 1,7 |
| 20 bis 22 ..... | 15,6 | 17,5 | 23,9 | 45,7 | 11,4 | 13,1 |
| 22 bis 24 ..... | 27,3 | 44,8 | 21,0 | 66,8 | 27,4 | 40,5 |
| 24 bis 26 ..... | 26,6 | 71,3 | 14,7 | 81,4 | 29,7 | 70,1 |
| 26 bis 28 ..... | 14,4 | 85,8 | 8,8 | 90,3 | 17,2 | 87,4 |
| 28 bis 30 ..... | 6,6 | 92,4 | 4,5 | 94,8 | 7,4 | 94,7 |
| 30 bis 32 ..... | 3,6 | 96,1 | 2,7 | 97,5 | 3,1 | 97,9 |
| 32 bis 34 ..... | 1,9 | 98,0 | 1,2 | 98,7 | 1,2 | 99,0 |
| 34 ..... | 2,0 | 100,0 | 1,3 | 100,0 | 1,0 | 100,0 |

[1]) einschließlich Höhere Fachschulen

Quelle: BMBW, BAföG-Statistik 1986

## III.2.5

Students receiving financial support by father's occupation (1984/1986) (in %)

| Ausbildungsstättenart | Vater ist | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Arbeiter | | Angestellter | | Beamter | | Selbständig | | Zuordnung nicht möglich [1] | |
| | 1984 | 1986 | 1984 | 1986 | 1984 | 1986 | 1984 | 1986 | 1984 | 1986 |
| (1) Wissenschaftliche Hochschulen, PH ..... | 19,2 | 17,9 | 21,3 | 20,2 | 9,8 | 9,6 | 12,5 | 12,6 | 37,2 | 39,7 |
| (2) Akademien, Kunsthochschulen ..... | 23,2 | 22,2 | 19,6 | 19,0 | 9,0 | 9,4 | 15,5 | 15,7 | 32,1 | 33,7 |
| (3) Fachhochschulen [2]) ..... | 24,4 | 22,4 | 18,9 | 18,0 | 6,9 | 6,9 | 10,9 | 10,8 | 38,9 | 42,6 |
| (4) Hochschulen insgesamt ..... | 20,9 | 19,5 | 20,5 | 19,4 | 8,8 | 8,7 | 12,1 | 11,8 | 37,7 | 40,5 |

[1]) Hierunter fallen Väter, die nicht (mehr) berufstätig sind, verstorben sind oder über die Angaben nicht vorliegen.
[2]) einschließlich Höhere Fachschulen

Quelle: BMBW, BAföG-Statistik 1984, 1986

## III.2.6

Development of the average support paid monthly

– in DM –

| | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 |
|---|---|---|---|---|---|---|---|---|
| Studenten | 435 | 500 | 495 | 510 | 495 | 525 | 542 | 549 |

[1]) Der durchschnittliche Förderungsbetrag für Schüler betrug 1986: 508 DM

Quelle: BMBW

III.2.7

## Development of the expenditure on financial support for students

in Millionen DM

| | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 |
|---|---|---|---|---|---|---|---|---|
| Studenten insgesamt ..... | 1 725 | 1 996 | 2 028 | 2 006 | 2 009 | 1 838 | 1 889 | 1 816 |
| davon Bund ..... | 1 121 | 1 298 | 1 318 | 1 304 | 1 306 | 1 195 | 1 228 | 1 180 |

Quelle: BMBW

# III.2.8

## Number of students studying abroad and receiving financial support under BaföG

| Ausbildungsstätten in | Zahl[1]) der Geförderten | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1974 | 1976 | 1978 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 |
| Belgien | 63 | 149 | 207 | 273 | 293 | 304 | 306 | 307 | 233 | 170 |
| Bulgarien | 0 | 1 | 2 | 1 | 1 | 0 | 0 | 1 | 1 | 1 |
| CSSR | 2 | 6 | 0 | 2 | 0 | 0 | 1 | 0 | — | — |
| Dänemark | 31 | 26 | 52 | 59 | 74 | 80 | 46 | 59 | 59 | 59 |
| Finnland | 6 | 1 | 3 | 4 | 3 | 3 | 1 | 4 | 4 | 5 |
| Frankreich | 404 | 463 | 697 | 529 | 586 | 499 | 536 | 469 | 469 | 766 |
| Griechenland[2]) | . | . | . | 3 | 5 | 3 | 4 | 5 | 5 | 5 |
| Großbritannien | 357 | 514 | 505 | 731 | 825 | 797 | 735 | 505 | 1 189 | 1 135 |
| Irland | 4 | 2 | 6 | 13 | 18 | 13 | 12 | 10 | 36 | 50 |
| Island | 4 | 0 | 0 | 1 | 2 | 1 | 0 | 1 | 1 | 1 |
| Italien | 80 | 138 | 228 | 386 | 392 | 384 | 343 | 396 | 392 | 396 |
| Jugoslawien | 2 | 0 | 7 | 9 | 10 | 10 | 20 | 17 | 17 | |
| Kanada | 2 | 15 | 15 | 37 | 84 | 76 | 54 | 51 | 38 | 45 |
| Malta | | | | | | | | | | 1 |
| Niederlande | 25 | 58 | 106 | 137 | 150 | 158 | 140 | 152 | 170 | 133 |
| Norwegen | 1 | 2 | 9 | 17 | 12 | 6 | 3 | 6 | 12 | 12 |
| Österreich | 147 | 206 | 234 | 392 | 364 | 403 | 311 | 332 | 357 | 315 |
| Polen | 5 | 11 | 1 | 3 | 4 | 3 | 2 | 7 | 11 | 5 |
| Portugal | 4 | 4 | 3 | 2 | 9 | 10 | 1 | 0 | 13 | 13 |
| Rumänien | 6 | 60 | 105 | 79 | 115 | 106 | 112 | 164 | 153 | 146 |
| Schweden | 6 | 1 | 6 | 7 | 15 | 10 | 4 | 13 | 21 | 21 |
| Schweiz/ Liechtenstein | 345 | 324 | 543 | 500 | 501 | 421 | 378 | 420 | 345 | 300 |
| Spanien | 20 | 12 | 14 | 51 | 189 | 158 | 188 | 200 | 214 | 282 |
| UdSSR | 3 | 1 | 2 | 2 | 19 | 16 | 9 | 18 | 14 | 21 |
| Ungarn | 1 | 2 | 3 | 5 | 2 | 0 | 31 | 76 | 68 | 84 |
| USA | 10 | 139 | 265 | 418 | 488 | 657 | 422 | 427 | 384 | 530 |
| Afrika, Asien (einschließlich Türkei) | 2 | 15 | 26 | 58 | 48 | 74 | 92 | 102 | 134 | 157 |
| darunter: | | | | | | | | | | |
| Taiwan | | | | | | | | 56 | 47 | 50 |
| China | | | | | | | | 15 | 21 | 36 |
| Japan | | | | | | | | 2 | 4 | 11 |
| Australien und Ozeanien, Südamerika | 0 | 7 | 5 | 18 | 45 | 50 | 32 | 43 | 33 | 79 |
| darunter[3]) | | | | | | | | | | |
| Australien | | | | . | 9 | 8 | 6 | 7 | 5 | 13 |
| Neuseeland | | | | . | 0 | 3 | 1 | 0 | | 13 |
| Brasilien | | | | . | 12 | 11 | 7 | 10 | 10 | 26 |
| Chile | | | | . | 4 | 3 | 2 | 3 | 3 | 4 |
| Costa Rica | | | | . | 3 | 4 | 0 | 1 | 1 | 0 |
| Ecuador | | | | . | 1 | 3 | 3 | 2 | 1 | 3 |
| Mexiko | | | | . | 9 | 9 | 6 | 7 | 2 | 5 |
| Peru | | | | . | 1 | 3 | 1 | 1 | 1 | 1 |
| insgesamt | 1 531 | 2 157 | 3 054 | 3 719 | 4 254 | 4 247 | 3 783 | 3 785 | 4 468 | 4 893 |

[1]) Fallzahlen, keine Durchschnittszahlen
[2]) 1980 erstmals gesondert ausgewiesen
[3]) 1981 erstmals gesondert ausgewiesen

Quelle: BMBW

## III.3

Expenditure on financial support for graduates

| Land | Gesamtförderung einschließlich Bundesanteil nach dem GFG (1975 - 1983) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1970 | 1975 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985[1] | 1986[1] |
| | - Nominalbeträge - | | | | | | | | |
| Baden-Württemberg | 934 | 13.145 | 3.400 | 3.053 | 2.168 | 860 | 1.020 | 5.020 | 8.020 |
| Bayern | 151 | 7.929 | 2.607 | 2.298 | 1.376 | 457 | 2.050 | 3.590 | 4.763 |
| Berlin | 600 | 5.450 | 1.914 | 1.728 | 1.111 | 422 | 716 | 2.850 | . |
| Bremen | - | 839 | 471 | 430 | 192 | 184 | 664 | 176 | 1.000 |
| Hamburg | 422 | 3.747 | 1.780 | 1.802 | 1.425 | 730 | 128 | 702 | 1.027 |
| Hessen | 120 | 8.118 | 3.532 | 2.939 | 2.153 | 1.013 | 142 | 990 | 1.539 |
| Niedersachsen | 339 | 4.959 | 2.138 | 1.963 | 878 | 599 | 500 | 2.600 | . |
| Nordrhein-Westfalen | 900 | 11.917 | 3.763 | 5.197 | 2.476 | 1.924 | 694 | 7.650 | 9.500 |
| Rheinland-Pfalz | 1.848 | 3.320 | 1.050 | 1.510 | 949 | 651 | 425 | 1.825 | 1.675 |
| Saarland | 190 | 353 | 228 | 223 | 222 | 111 | 150 | 340 | 612 |
| Schleswig-Holstein | - | 1.095 | 419 | 386 | 193 | 21 | 1.072 | 1.072 | . |
| insgesamt | 5.504 | 60.872 | 21.302 | 21.529 | 13.143 | 6.972 | 7.561 | 26.215 | . |
| | - Realbeträge -[2] | | | | | | | | |
| insgesamt, real | 10.964 | 76.185 | 21.302 | 20.523 | 12.113 | 6.253 | 6.668 | 22.619 | . |
| Nachrichtlich: | | | | | | | | | |
| Bundesanteil an der Förderung nach dem GFG (nominal) | - | 44.764 | 13.132 | 12.532 | 8.056 | 3.181 | - | - | - |
| Anzahl der GFG-Stipendiaten | - | 8.933 | 3.190 | 3.086 | 1.775 | 774 | - | - | - |

[1] Haushaltsansätze.

[2] Diskontiert mit dem Preisindex für den Staatsverbrauch (1980 = 100).

Quelle: Haushaltspläne der Länder. Bundesministerium für Bildung und Wissenschaft.

## III.4

Contributions of the Fed. Government to the financial support offered to candidates for a doctor's degree by the scholarship organisations for the gifted (in Mill. DM)

| | 1970 | 1975 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986[1] |
|---|---|---|---|---|---|---|---|---|---|
| | - Nominalbeträge - | | | | | | | | |
| Zuschüsse | 3,3 | 11,0 | 11,4 | 10,6 | 12,0 | 12,1 | 14,1 | 19,9 | 21,5 |
| | - Realbeträge - | | | | | | | | |
| Zuschüsse, real[2] | 6,6 | 13,8 | 11,4 | 10,1 | 11,1 | 10,9 | 12,4 | 16,8 | . |

[1] Haushaltsansatz.

[2] Diskontiert mit dem Preisindex für den Staatsverbrauch (1980=100).

Quelle: Bundeshaushaltsplan.